



This is a digital copy of a book that was preserved for generations on library shelves before it was carefully scanned by Google as part of a project to make the world's books discoverable online.

It has survived long enough for the copyright to expire and the book to enter the public domain. A public domain book is one that was never subject to copyright or whose legal copyright term has expired. Whether a book is in the public domain may vary country to country. Public domain books are our gateways to the past, representing a wealth of history, culture and knowledge that's often difficult to discover.

Marks, notations and other marginalia present in the original volume will appear in this file - a reminder of this book's long journey from the publisher to a library and finally to you.

### Usage guidelines

Google is proud to partner with libraries to digitize public domain materials and make them widely accessible. Public domain books belong to the public and we are merely their custodians. Nevertheless, this work is expensive, so in order to keep providing this resource, we have taken steps to prevent abuse by commercial parties, including placing technical restrictions on automated querying.

We also ask that you:

- + *Make non-commercial use of the files* We designed Google Book Search for use by individuals, and we request that you use these files for personal, non-commercial purposes.
- + *Refrain from automated querying* Do not send automated queries of any sort to Google's system: If you are conducting research on machine translation, optical character recognition or other areas where access to a large amount of text is helpful, please contact us. We encourage the use of public domain materials for these purposes and may be able to help.
- + *Maintain attribution* The Google "watermark" you see on each file is essential for informing people about this project and helping them find additional materials through Google Book Search. Please do not remove it.
- + *Keep it legal* Whatever your use, remember that you are responsible for ensuring that what you are doing is legal. Do not assume that just because we believe a book is in the public domain for users in the United States, that the work is also in the public domain for users in other countries. Whether a book is still in copyright varies from country to country, and we can't offer guidance on whether any specific use of any specific book is allowed. Please do not assume that a book's appearance in Google Book Search means it can be used in any manner anywhere in the world. Copyright infringement liability can be quite severe.

### About Google Book Search

Google's mission is to organize the world's information and to make it universally accessible and useful. Google Book Search helps readers discover the world's books while helping authors and publishers reach new audiences. You can search through the full text of this book on the web at <http://books.google.com/>









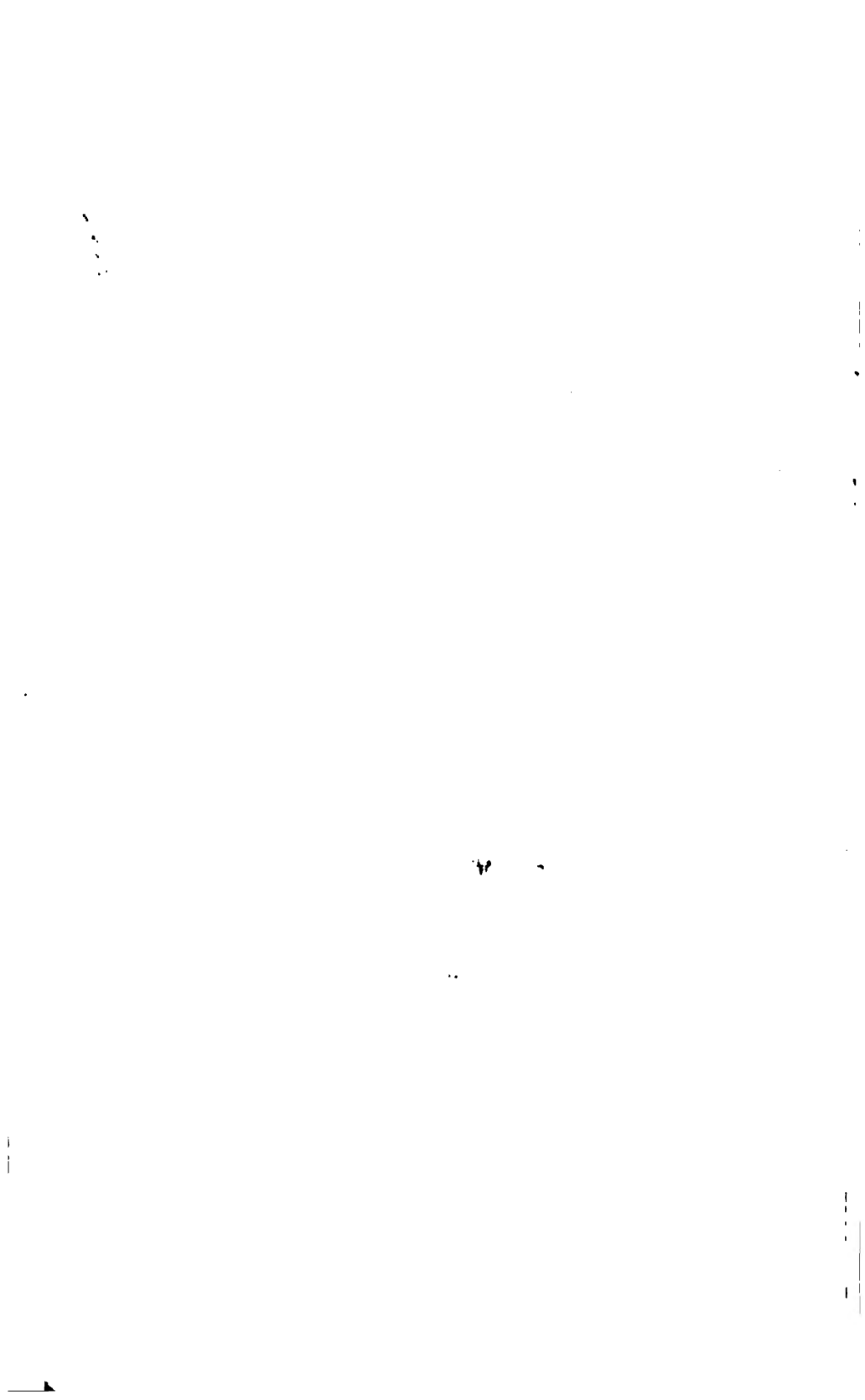












INVESTIGATION OF PANAMA CANAL MATTERS.

---

HEARINGS

BEFORE THE

COMMITTEE ON INTEROCEANIC CANALS

OF THE

UNITED STATES SENATE

IN THE MATTER OF THE SENATE RESOLUTION  
ADOPTED JANUARY 9, 1906,

PROVIDING FOR

AN INVESTIGATION OF MATTERS RELATING  
TO THE PANAMA CANAL, ETC.

---

Vol. I.

---

WASHINGTON:  
GOVERNMENT PRINTING OFFICE.  
1906.

TC 774.  
1218  
190612

DEC 8 1906  
D. of D.

7-35184

YRABLI ENT  
22BOMOO 70

## HEARINGS BEFORE SENATE COMMITTEE ON INTEROCEANIC CANALS ON SENATE RESOLUTION PROVIDING FOR AN INVESTIGATION OF MATTERS RELATING TO THE PANAMA CANAL, ETC.

WASHINGTON, D. C., *Thursday, January 11, 1906.*

The committee met at 10.30 o'clock a. m.

Present: Senators Millard (chairman), Kittredge, Dryden, Hopkins, Knox, Ankeny, Morgan, Gorman, and Simmons.

Also the Hon. William H. Taft, Secretary of War.

The committee thereupon proceeded with hearings under the following resolution of the Senate, adopted January 9, 1906:

*Resolved*, That the Committee on Interoceanic Canals, or any subcommittee thereof, be, and are hereby, authorized and directed to investigate all matters relating to the Panama Canal and the government of the Canal Zone and the management of the Panama Railroad Company, to send for persons and papers, and to administer oaths, and employ a stenographer to report such hearings; and that the committee be authorized to sit during the sessions or recess of the Senate, and that all expenses thereof be paid out of the contingent fund of the Senate.

### PRELIMINARY STATEMENT OF HON. WILLIAM H. TAFT, SECRETARY OF WAR.

The CHAIRMAN (Senator MILLARD). Gentlemen, we have asked the Secretary to come here this morning to explain to us the situation up to the present time. He is present now, and I presume we are ready to have him proceed with his statement. I think that if the Secretary will state the case himself, in his own way, it will be more satisfactory, to start with at least, than anything that we might suggest.

Secretary TAFT. Mr. Chairman, I of course do not like to break into the order that the committee selects in this investigation. We are very anxious to have it just as thorough as possible, and to afford to the committee every possible opportunity for investigation. But I am sure the committee would wish to make its investigation square with the needs of the public service on the Isthmus. Mr. Stevens, the chief engineer, is now in the city. He is here primarily for the purpose of advising the Isthmian Canal Commission upon the issues which will be presented to them by the two reports—the majority report and the minority report—of the Consulting Board. I received this morning a cablegram from General Davis, the chairman, who went abroad to complete and have signed the majority report, saying that it will be mailed to-day, and will reach here in due course of mail.

I presume that when that report reaches here the minority report will also be filed, and that then Mr. Stevens will have before him the material upon which to make his recommendations. He has himself



filed a report in advance of having seen either of these reports, so I have no doubt that what he will have to say subsequently will be more in the nature of comment and much shorter than it would be if he had delayed action until the end. But he is very anxious to return to the Isthmus as soon as he completes that matter, and I was going to suggest to the committee that Mr. Stevens be first called, so that his testimony may be given in full before I am called, for I am here all the time—that is, I hope to be.

I would also like to state that Major Gallagher, who was the assistant purchasing agent of the Commission, has been detailed to go to Manila. He is a major in the commissary department, and for, I think, nearly all of the time of the existence of the original Commission under Admiral Walker—part of the time, certainly; indeed, down to to-day—he has had more or less to do with the purchasing of materials for the Commission. And in case the committee desires to go into the question of those purchases, as doubtless it does and ought to, he would be an important witness with reference to many of the purchases.

Senator MORGAN. When does he have to go?

Secretary TAFT. He sails the 1st of February, so that he would have to leave here probably the latter part of January.

The CHAIRMAN. He is in the city now, is he not? He lives here?

Secretary TAFT. He is in the city now. I saw him this morning, and told him that I thought the committee would probably need his services. I presume (though of course I have no means of knowing other than natural inference) that my examination may be with reference to a good deal that these gentlemen who have done the things may testify to, and therefore what I can say would come naturally after they have testified. Therefore, I would ask the committee to excuse me and take up the examination of these gentlemen, whose presence here is only temporary, and whose going will greatly benefit, the one the army service and the other the canal service.

The CHAIRMAN. In conversation with Mr. Stevens yesterday, Mr. Secretary, I understood from him that he was anxious to get away as soon as possible; so that arrangement has been made with him to appear before the committee on Tuesday next, and he is to appear here at that time—at 10:30 on Tuesday next.

Secretary TAFT. Very well, then.

The CHAIRMAN. That is the regular meeting of the committee, and he will be here at that time.

Secretary TAFT. Yes, sir.

The CHAIRMAN. As to Major Gallagher we have not fixed any time, because I assumed that the testimony of Mr. Stevens would probably take some little time.

Secretary TAFT. Yes, sir.

The CHAIRMAN. But we can call on him later. I inferred from what you said yesterday that you would like to appear first and make the preliminary statement that you have now made.

Secretary TAFT. Yes; I merely wanted to explain the general situation. Of course there are doubtless people now on the Isthmus whom the committee will desire to hear, and any communication sent to me will result in a cablegram direct to the Isthmus to have them come at once. You may ordinarily count on its taking about two weeks to get such persons here; not that it takes two weeks to come, but that that

is the average, in connection with catching the steamer. The steamer comes once a week, and you ought to count on from ten days to two weeks in such cases.

The CHAIRMAN. Then, Mr. Secretary, I assume that there is no further reason for detaining you this morning?

Secretary TAFT. Of course I am ready to answer any questions that may be asked.

The CHAIRMAN. Do you wish to ask the Secretary something this morning, Senator Morgan?

Senator MORGAN. No; I had no idea for what purpose Secretary Taft was being asked to come before the committee, and I have not yet, except to give us a general exposition or explanation of his views as to what would be and ought to be the policy of the Government, principally as to deciding upon the plan of the canal and its future operations.

Secretary TAFT. I have on my desk, Senator Morgan, if the committee would like to have it—though it is not, perhaps, fair to give it publicity because of the absence of revision—the majority report of the Commission, prepared by General Davis after the resolutions of the majority had been adopted. He says that a few substantive changes and many verbal changes have been made, but if it will assist the committee I will gather up those reports and send them up here. General Davis left nine copies with me, and I will be very glad to send them up, asking the committee, when the main report comes in, to destroy them, or at least to make such notes upon them that it will be understood that they are unrevised copies.

The CHAIRMAN. You would wish those to be kept strictly confidential, I suppose.

Secretary TAFT. Yes, sir. I think it would hardly be fair to the majority to publish such a report as their report until they have had a chance to examine it and sign it. I did not know, however, but that an examination of this unrevised copy might afford an opportunity to the committee to do a little advance work, if they desire; because I of course assume that the range of this investigation will not only cover what has been done, but must necessarily cover the question of what ought to be done in the future.

Senator KNOX. How soon will that report be revised?

Secretary TAFT. It will reach here—

Senator KNOX. It will be revised in the light of the copy that is coming—is that the idea? This draft which you have now will be corrected by the copy that is coming?

Secretary TAFT. Exactly; exactly; and that will reach here, I should think, about the 20th of this month.

The CHAIRMAN. Mr. Secretary, do you understand that Mr. Stevens will remain here until after that copy comes?

Secretary TAFT. He will not remain here until after it comes, unless the minority report is delayed until that time. But the gentlemen making up the minority report have had the benefit of this report. We have been pushing it as rapidly as we could, and it is quite possible that the minority report may be filed any day. Mr. Stevens has already made his comments on the majority report; and when the minority report is filed, as soon as he completes his comments on that he will go—unless, of course, detained by the committee

The CHAIRMAN. He seemed, in his conversation with me yesterday, very anxious to get away.

Secretary TAFT. Yes; he is.

The CHAIRMAN. And I assume that Mr. Stevens's testimony here will be quite important and may take a little time.

Secretary TAFT. Yes.

The CHAIRMAN. I should think so.

Secretary TAFT. Yes; I should think it very likely. He has only been on the Isthmus since the 1st of July, but he has been exceedingly thorough and has decided views.

Senator GORMAN. Will there be any embarrassment, Mr. Secretary, or any impropriety, in your judgment, in having Mr. Stevens testify here and criticise both the majority and the minority reports prior to his official report to you and to the President?

Secretary TAFT. Well, assuming that his statement would not be published, I do not think there would be any impropriety in it. I think it probably ought not to be given to the newspapers until after he has filed his regular report.

Senator GORMAN. It seems to me so.

Secretary TAFT. I think that would be fair to him, and it is—

Senator GORMAN. Not only to him, but I had in mind the question whether it was exactly the treatment that ought to be accorded to the President under the circumstances.

Secretary TAFT. I am sure the President would waive any question of that sort and would be glad to have you look as fully as possible into his views.

Senator MORGAN. I would suggest to the committee, as to any paper that Secretary Taft chooses to present to us under the circumstances he has signified, that we keep the matter entirely private in the committee. It is not for our personal information. We will not communicate what he has said even to members of the Senate, because communications of that sort, received in the ordinary course, are not always considered as being entirely secret. I would suggest that whatever Secretary Taft chooses to submit to us in advance of the incoming of these reports should be regarded as matter entirely within the keeping of the committee—the committee secret, I will call it—until such time as he chooses to release us from that obligation; until such time as the report comes in.

Senator GORMAN. I doubt very much whether there ought to be more than one copy of that report here, so that there may be no question as to its being kept here.

Secretary TAFT. It would be very much more convenient to me if I could limit what I send to one copy, because I would have to scrape up the others. There were only nine delivered; one went to the President, seven to the members of the Isthmian Canal Commission, and I have my own at home, which I shall be very glad to send to the chairman of the committee.

Senator MORGAN. It would be a great advantage, I should think, to have this opportunity for longer consideration before calling upon Mr. Stevens, because this is an emergent piece of work that we have to do, and we ought not to be required to do it in too great a hurry.

The CHAIRMAN. Well, Senators, is there anything other than what has been mentioned by the Secretary that you wish to talk with him about this morning? I anticipated that we would have a little longer

session with the Secretary, but under the circumstances I presume it is better that we should not detain him, unless some of you wish to ask him some questions.

Senator GORMAN. I do not know, Mr. Chairman, whether or not the Secretary has been preparing a bill for the government of the Canal Zone since the adjournment of the last session; but as such a measure must of course emanate from his Department, it strikes me that it might be wise, if he has not done so, to request him to draft it at an early day, so that as we go on with this matter we can consider it.

Secretary TAFT. I should be very glad to do that, Senator. We are quite in need of such a measure, for questions constantly arise which need some kind of legislative action on the Zone. I had hoped that the consideration of the committee would be given to some act of that sort, with a view to relieving us from the constant doubt which arises as to what is executive and what is legislative action on the Zone. Of course we are limited altogether now to that kind of government that the President gave in California when there was no government. We simply exercise police power. That is all.

Senator KITTREDGE. How do you manage, Mr. Secretary, about the courts?

Secretary TAFT. The courts simply sit right on. We have not done anything; we have just let the status quo continue. There did not seem to be anything else to do. They had been constituted properly when they were created and when they were appointed, and we have not done anything further.

The CHAIRMAN. Mr. Secretary, do I understand that Governor Ma:oon expects to come here soon after the return of Mr. Stevens?

Secretary TAFT. Yes, sir; I suppose they will pass each other on the way. I have telegraphed him to come, and he will arrive here probably the latter part of January, the last week in January.

Senator KNOX. Are those courts working satisfactorily?

Secretary TAFT. So far as I know.

Senator KNOX. Do they have much business?

Secretary TAFT. Not a great deal.

Senator KNOX. They are principally occupied with criminal cases, I presume?

Secretary TAFT. It is chiefly criminal business and business that arises with reference to titles. As in all of those Spanish-governed countries that I have been familiar with, at least, titles are in a desperate condition.

Senator KNOX. You mean questions of titles as between individuals, do you—not any question as to our title?

Secretary TAFT. Not any question as to our title to what we have a title to; but there are a number of questions arising as to what lands we do have a title to. The legal adviser of the Insular Bureau has been engaged for weeks in going over the lands of the railroad company and the lands of the Canal Commission with a view of establishing proper boundaries. The Spanish surveys are always most unsatisfactory.

Senator KNOX. Who is the legal adviser of the Commission?

Secretary TAFT. Mr. Paul Charlton.

Senator KNOX. Oh, yes—of Omaha?

Secretary TAFT. Yes.

Senator KNOX. I remember him.

Senator MORGAN. I suppose the question of title down there, so far as the Government is concerned, has reference to questions of condemnation.

Secretary TAFT. Yes, sir; questions of use and condemnation. There are some claims which still remain unadjusted, made against the old canal company for trespass. They have a curious view of trespass under the Spanish law. Trespass seems to be an insult which involves exemplary damages. Bringing suits for trespass is a very profitable business.

Senator KNOX. Were not those claims assumed or agreed to be paid by the New Panama Canal Company, the first company? Was there not a fund left with somebody to cover those claims?

Secretary TAFT. Yes.

Senator KNOX. I thought so.

Secretary TAFT. But of course we have to litigate the question.

Senator KNOX. Of course you have to fight those claims out.

Secretary TAFT. Yes, sir.

Senator KNOX. But if they result in damages, they are to be paid not by the Government, but by the New Panama Canal Company?

Secretary TAFT. Yes, sir. The court consists of three judges, the chief justice, Señor Mutis Duran, who is one of the leading lawyers in Panama and the former governor of the province when it was under Colombian régime; Judge Gudger, who was for four years consul-general there and who speaks Spanish and is quite familiar with the Spanish law; and Judge Collins, formerly for two terms, I think, judge of the superior court in Illinois.

Senator KNOX. Mr. Secretary, whatever became of the stock of the Panama Railroad? Is it still carried in the name of the counsel who bought it over, or has it been transferred?

Secretary TAFT. No, sir; it is carried in my name.

Senator KNOX. It is carried in your name?

Secretary TAFT. Yes, sir; the President directed it to be put there on the books of the company.

Senator KNOX. When was that transfer made? About a year ago?

Secretary TAFT. My impression is that it was last spring, but I can not tell the exact date.

Senator KNOX. Was it not shortly after you got the certificate?

Secretary TAFT. Yes; it was immediately after I got the certificate.

Senator KNOX. That was a year ago last May or June, then?

Secretary TAFT. Yes; I sent it over at once.

Senator MORGAN. Mr. Secretary, this little discussion leads my mind to this conception: Would it not be best for Congress to enact a law, a joint resolution, or something, or for the President, in the exercise of his present powers, to ordain, that any party in possession of land in the Zone might be considered as a sufficient representative of the title to be made a party defendant in the proceeding, with liberty to others to intervene for the protection of their interests if they choose to do so?

Secretary TAFT. I think, Senator, that in the Government act it might be well to make some such provision as that. It likens itself to the provision that we have had to make in the Philippine Islands on the same subject, with reference to the question of the statute of



limitations, and possession, and so on; and I shall be very glad to look into that subject and make a recommendation on it, if you desire.

Senator MORGAN. I wish you would.

Senator ANKENY. In this matter of the stock, Mr. Secretary, was it all transferred to you—every share?

Secretary TAFT. Every share was transferred to me, and then this course was taken: The railroad company is a corporation chartered under the laws of New York. Each director who was elected paid \$100 for his share of stock.

Senator ANKENY. To make him eligible?

Secretary TAFT. To make him eligible; and I transferred, or by my direction that share of stock was transferred, to him, and the money which came from it was deposited in the Treasury of the United States. Then he gave back to me an agreement to sell back to me that share of stock at \$100 a share.

Senator ANKENY. The ownership of ten shares made him eligible?

Secretary TAFT. The ownership of one share made him eligible.

Senator ANKENY. They are \$100 shares, are they not?

Secretary TAFT. They are \$100 shares, and each director executed a power of attorney to me to transfer that share upon my exercising the option.

Senator KNOX. That is the same arrangement that Hyde had with the Equitable directors; so you are a "dummy director?"

Secretary TAFT. Well, I do not know exactly what kind of directors you can have where the Government owns all the stock and wishes to retain the control of it.

Senator KNOX. It is perfectly proper, of course.

Secretary TAFT. And I do not know whether the directors would resent being called "dummy directors." If that is what makes a dummy director, then they are dummies. I have the shares of stock in my control, with powers of attorney authorizing me to transfer them; and my recollection is that I gave back to each one of the directors \$10 as an earnest of the bargain. It was made as elaborate as possible for the purpose of having a consideration for the option. So that I do not know any other device that could be used to make the Government more certain with respect to the ownership of the entire capital stock and still secure literal compliance with the statute of New York as to qualifying the directors.

Senator MORGAN. I was about to make a suggestion just on that point, which has been before us all the time and has been a source of trouble, about the exercise of authority over the railroad under the laws of New York, the charter, etc.—the exercise of governmental authority under the laws of Congress.

Secretary TAFT. Yes, sir.

Senator MORGAN. Would it not be very well to ask the legislature of New York (which is now in session, you know) to transmit, if you please—I do not know whether I use the correct word—or, at all events, to abandon in favor of the United States the full and entire control of that corporation?

Secretary TAFT. Well, Senator, there are certain questions that would be difficult to meet if you attempted that kind of a conversion, unless you took the additional course of voting the money to take up, as you might, all the bonds and secure the cancellation of the mortgage on the railroad property.

Senator MORGAN. I think that is one of the first duties we ought to perform.

Secretary TAFT. That can be done.

Senator MORGAN. I think we ought to clean off that debt.

Secretary TAFT. That can be done by redemption of the bonds. I think all the bonds can be redeemed. There are two classes, and I may be inaccurate with respect to one of them. I think all the bonds can be redeemed at 105.

Senator GORMAN. The 6 per cents and all?

Secretary TAFT. The 4½ per cents.

Senator GORMAN. Yes; only those?

Secretary TAFT. I doubt about the others. As long as there is that private interest in the corpus of the company——

Senator ANKENY. The Panama Railroad Company?

Secretary TAFT (continuing). The Panama Railroad Company. I do not think that such a radical provision as that which you suggest would be quite just to the interests of the mortgage bondholders; and possibly, therefore, it would be beyond the power of the New York legislature to enact.

Senator KNOX. On that subject, could not the United States condemn the lien and force the payment of the bonds?

Secretary TAFT. Well, I suppose it could; yes. I suppose that course might be taken if it is worth while; but it is an anomalous situation. The character of the railroad company as a business corporation offers some facilities in the administration down there that it would not enjoy as a Government railroad, unless you inserted a good many enabling provisions in your act. For instance, the law requires that every dollar of money that comes in from the property of the United States shall be deposited in the Treasury of the United States. That would require every dollar that is collected for a ticket on the Isthmus to be put in the Treasury of the United States. It would be utterly impracticable to run a railroad under those circumstances; and it would hardly be in accord with international faith for us to take away, even if you desired to do so—as I suppose, of course, you do not—the public character of the road in its obligation to discharge what a common carrier always has to discharge, viz., the duty of carrying of freight that is offered to it.

Senator KITTREDGE. Are we not bound to maintain that condition with reference to the railroad?

Secretary TAFT. I think you are; yes, sir. I think you are; and of course, therefore, you would have to give the ordinary powers that a railroad exercises every day to accomplish that result. And I am not sure but that we have happened in to the best solution of the railway question. Of course the payment of the bonds may be discussed aside from the question of changing the identity of the railroad.

Senator KITTREDGE. So long as those bonds are outstanding, Mr. Secretary, has not the bondholder the right to insist in court upon the preservation of the identity of the property?

Secretary TAFT. I think he has, sir; yes, sir.

Senator KITTREDGE. In order to preserve his lien, if necessary to enforce it?

Secretary TAFT. Yes, sir.

Senator KNOX. There would be no legal objection to taking up those bonds by process of condemnation, and then Congress chartering this railroad and having it exclusively under Federal control, would there?

Secretary TAFT. No, sir.

Senator KNOX. We have the power to charter that road, to wind it up under the New York charter, and to put it in operation under a national charter.

Secretary TAFT. Yes; your charter would be, of course, just as efficient as the New York charter for the purposes that I have mentioned.

Senator KNOX. I agree with you that you have got to preserve it as a separate legal entity for convenience.

Secretary TAFT. Yes, sir; I observe that on the floor of the Senate (if I may mention that here) it was suggested that the management ought to be merged; and so far as we can merge it, it is merged. The directors are the members of the Canal Commission; the president of the railroad company is the Chairman of the Commission, and they both are under my direction by the order of the President; so that we try to make the management as completely one as possible. And yet, as I have already said, it is sometimes quite convenient to act in the name of the company rather than in the name of the Canal Commission; and we thus accomplish things that are legal and proper, the authority of which might, perhaps, be questioned if we acted as a commission.

Senator KITTREDGE. Mr. Secretary, could you, without much trouble, ascertain and inform us as to the Government's rights in regard to the bonds?

Secretary TAFT. Oh, yes, sir; I would be glad to send you a form of the bond. There is one—I do not think it is exactly in the form of a bond, but it is a convention with the Colombian Government. At any rate, I will send you all the evidences of the indebtedness, so that you can have that.

Senator KITTREDGE. It seems to me that it would be sound business policy to take up those bonds if it is within our power to do it.

Secretary TAFT. There is a provision by which the bonds will pay themselves in the course of eight or ten years. There is a sinking-fund provision.

Senator KNOX. What interest are you paying?

Secretary TAFT. Four and a half per cent.

Senator KNOX. On all of the bonds?

Secretary TAFT. No, sir; there are some 6 per cent bonds. The original ones were 6 per cent bonds.

Senator MORGAN. There is no power under them, I suppose, to participate in the conduct of the affairs of the railroad?

Secretary TAFT. No, sir.

Senator MORGAN. Then, that is a separate question. I do not see why Congress can not make a provision to put those bonds on just as good a footing as they have to-day in respect of the security afforded for their payment.

Secretary TAFT. Well, there is this consideration, Senator, that I think in a court of equity the bondholder may complain of injury to his collateral; and therefore, while the ownership of all the shares of stock gives us the right to use this property as we choose, it is subject to the limitation that we shall not injure the security.

Senator MORGAN. Yes, but it could hardly be called an injury of the security to substitute for the property the credit of the United States Government.

Secretary TAFT. Still, I am not so sure that a court of equity would not say that a man has the right to insist on the thing in his hand rather than to accept even Government bonds.

Senator ANKENY. Pardon me, Mr. Secretary, but it makes no difference, as far as the revenue is concerned, whether it belongs to the road or to the Government?

Secretary TAFT. Not a bit; because under the authority of the Attorney-General we have the right, in pursuance of the general policy and purposes of the Spooner Act, for the purpose of bettering the equipment of the railroad, to lend to the railroad money to be used in the expenditure on the equipment. Out of the eleven millions which have already been appropriated this year, it is quite probable that we may have to advance to the company, in order to meet its indebtedness for new equipment, some half a million or a million dollars. Indeed, that policy was pursued with reference to the purchase of two steamships. The Canal Commission bought the steamships and then leased them to the company at 4 per cent interest on the money paid, with 4 per cent for wear and tear.

Senator ANKENY. Mr. Secretary, if it is in order, is it not necessary to increase the facilities of that road as soon as possible, as a business proposition, by means of double tracks, etc.?

Secretary TAFT. It is now to be double tracked.

Senator ANKENY. That will relieve the situation.

Secretary TAFT. When it is double tracked, there will be no difficulty; and there is not now on the Isthmus a glut, except that growing out of the action of the Pacific Mail Steamship Company. If the committee has time, I will be very glad to state the trouble and the problem that we have in that regard.

The CHAIRMAN. I think we would be very glad to have you state it, Mr. Secretary, if you have time to do so.

Secretary TAFT. Yes, sir. The Pacific Mail Steamship Company, when we became the owners—by “we” I mean the Government—had a contract with the Panama Railroad Company by which all goods from New York over the Panama Steamship Line and over the railroad for San Francisco or any point north of Panama were to be billed exclusively by through bills over the Pacific Mail Steamship Company’s steamers.

Senator MORGAN. That is the old arrangement that has been in operation for twenty-five or thirty years?

Secretary TAFT. Yes, sir; it was not continuously in operation; there was a break.

Senator MORGAN. Yes; there was a break.

Secretary TAFT. And then it was resumed again.

Senator MORGAN. Yes.

Secretary TAFT. It was of such a character that I advised the President that I did not think the Government ought to enter into that arrangement; and the contract provided (anticipating, apparently, the sale to the Government) that in case the road was sold, or in case the Government of the United States became interested in the railroad so as to become a majority stockholder, the right was reserved to the railroad company to terminate that contract upon six months’ notice. I directed the president and the directors of the railroad company to terminate that contract by notice in January of last year; and by the 12th of July the contract was terminated by its own provisions.

Now, the Pacific Mail Steamship Company is running even worse steamers than it ran before between Panama and San Francisco. The ports where it seems to make its money are the ports in Central America and Mexico where it has agents who are really the factors for the coffee plantations and for the other products that are raised in those countries. These agents act as bankers for the planters and advance them money, and in that way the company retains control of that business—charging. I have no personal knowledge about this, but if they pursue the policy that obtains in the Philippines they get most of the profit out of the crop.

That is the business that is profitable to the steamship company, so when they get through business to San Francisco they are very slow and leisurely about taking it up. As a result, these steamers, of very insufficient tonnage, have left (as Mr. Stevens told me yesterday or day before) on the last four or five sailings with only a third of a cargo or with only half a cargo, leaving much more than a full cargo on the wharf at La Boca, where the steamers dock. We are, therefore, getting a glut of business as a result of the inactivity and the lack of desire on the part of the Pacific Mail Steamship Company to do that business, and the question which is presenting itself to us with a good deal of force is, What shall we do about it? Shall we put on Government steamers on that side of the Isthmus and establish a line there? Or, if we attempt to get in some other line which has not the good will and the situation, so to speak, that the Pacific Mail has with respect to its Central American and Mexican business, can we induce any company on that side to do the work?

I am not sure that what I am about to say will meet the views of some of my advisers in the War Department; but we have some transports that we might possibly put into that business if we were authorized by Congress to do it; and if we did it might have some effect on the transcontinental rates. The Pacific Mail Steamship Company is owned by the Southern Pacific Railway Company.

Senator MORGAN. Allow me to make this inquiry right there: Does the Pacific Mail Steamship Company claim the rights of the coastwise trade between Panama and San Francisco, for instance?

Secretary TAFT. Oh, yes, sir; they are claiming those rights.

Senator MORGAN. They claim those rights?

Secretary TAFT. Oh, they have those rights; yes, sir; so that no company could go into that business, under your coastwise laws, without having an American registry.

Senator MORGAN. If we were to modify the coastwise laws with respect to that particular line of transportation, would it not be probable that other companies would come in and take it up?

Secretary TAFT. To-morrow.

Senator MORGAN. Yes; so that is a solution of it?

Secretary TAFT. Well, of course, I am simply here to discuss the situation under the existing law.

Senator HOPKINS. Any modification of the coastwise laws would be referred to Brother Frye, of Maine.

Senator MORGAN. Well, Senator Frye will be like the balance of us—willing to give up some of his prejudices in favor of the interests of the Government.

Secretary TAFT. I ought to say that the Chilean line from Panama south, of which complaint was made before the change, has cooperated



with the Government, and that there is no difficulty and no glut at all with respect to the goods going from Panama to Valparaiso and along down that coast.

Senator KNOX. What direct interest has the Government in the facilities for transportation between Colon and San Francisco?

Secretary TAFT. It is a three weeks' trip, as compared with a week's trip. Perhaps I exaggerate by saying three weeks; it is a little more than two weeks by an ordinary steamer from Panama to San Francisco, and of course that makes the trade of the Canal Commission from New York to Colon a great deal larger than that from San Francisco to Panama. And I can not say that for the reason alone of furnishing facilities for the construction of the canal the establishment of that line would be a proper move.

Senator GORMAN. You can not say that?

Secretary TAFT. I should like to look further into that matter, but I am inclined to think that it would hardly be justified; that the outlay for that alone would hardly be justified. I think we could do business and not lose money by it; but, while I do not mean to say that you could not make an argument and shape the matter so as to give that as a nominal reason, my impression is that if there were no other consideration in the matter it would not be justified. I say that with reservation, because I have not given the question as full investigation as I ought to; but that is my impression.

Senator HOPKINS. Mr. Secretary, if the Government could transact business there in the way of transportation at a profit, why does not that call in private enterprise to do that business, outside of the Pacific Mail Steamship Company?

Senator MORGAN. The coastwise laws cut it off.

Senator HOPKINS. Oh, no; American capital could invest in vessels or transports.

Secretary TAFT. Well, I do not know; it probably depends upon the question of how much profit there would be. The profit, if any, would be comparatively small, because, of course, the vessels would have to run under the coastwise laws and the statutes with reference to the character of men that are employed, their being American seamen, and all that sort of thing; wages would have to be paid according to the American standard, and I doubt if we would make a very great profit.

Senator KNOX. Am I correct in this understanding—that waiving, now, the question of the desirability of the people having a better means of transportation from Panama north (for, of course, that ought to be facilitated as far as the Government can properly concern itself in the matter), the only immediate interest the Government would have would be in the increase to some extent of the business upon the Panama Railroad?

Secretary TAFT. Yes, sir; and it would thus get rid in its own way of the freight that accumulates.

Senator KNOX. The congestion there?

Secretary TAFT. The congestion there.

Senator KNOX. But it is only because of the Government's ownership of the railroad that it would have a direct interest?

Secretary TAFT. Yes, sir; that is all. I reserve the right to change my statement with reference to this, however, should investigation give me a different view. But that is my impression.

Senator KNOX. Yes.

The CHAIRMAN. Mr. Secretary, during the month of October the congestion at Colon, and, in fact, all the way over the road, I think, was very different from what it is now, was it not?

Secretary TAFT. Oh, yes. The congestion, so far as the railroad is concerned, has been relieved, because they have put in two docks at Cristobal, which is a part of Colon—it is only five minutes' walk from Colon—and steamers are taken in there, and under Mr. Stevens's very efficient pushing the whole situation has been changed. The glut last summer was really due to some thirty or forty days' quarantine against Panama during the yellow-fever season, which kept the steamers from coming in to take what was there for them to take. It was an exaggerated case of what now exists with reference to the Pacific Mail Steamship Company, because then no steamers were permitted to come in.

Senator MORGAN. That is a question in which I feel a great deal of interest, because I happen to be the Chairman of the Committee on Public Health of the Senate.

Secretary TAFT. Yes, sir.

Senator MORGAN. And I would like to ask you whether that quarantine was declared at San Francisco?

Secretary TAFT. I am not sure whether it was from the Mexican ports; I think it was from San Francisco, too, but certainly from the Mexican ports—certainly from those ports that these steamers had to call at in coming down, Mexican and Central American ports.

Senator MORGAN. I wish to call your attention to the fact that we have pending in the Senate now a convention to which Mexico and seven or eight of the South American States are parties for the purpose of controlling the quarantine, particularly in respect of yellow fever; and it may be that the Government will find it to its interest to examine into that question to see whether or not we had not better put in this convention (if it is not already there) some protection against this very condition which has obstructed the business of the Government in the construction of the Panama Canal very seriously for two or three months. One case of bubonic plague there kept the whole concern under quarantine for two or three months.

Secretary TAFT. Yes, sir.

Senator MORGAN. That is an impossible condition so far as we are concerned. We can not build that canal if we are to be obstructed with quarantines from foreign countries in that way, you know, particularly from American States.

Secretary TAFT. On the other hand, Senator, we are engaged in the work of making the Isthmus healthful.

Senator MORGAN. I know it.

Secretary TAFT. And it is a center about which, I suppose, there are as many unhealthy ports as there are in the world, on both sides. As you come down from Mexico and through Central America, and, then down to Cartagena and the Venezuelan ports on the Atlantic side, and as you go down the South American coast and up the Mexican coast on the other side, there are places where they are continually having epidemics of smallpox, bubonic plague, yellow fever, and cholera. The attitude of the inhabitants in the Isthmus is quite according to human nature. They regard themselves as immune from yellow fever, and immune, many of them, from other diseases that are

quarantined against; but when bubonic plague comes in they take to the hills, because they fear that. As a matter of fact, I think bubonic plague is rather the most easily controlled of the lot.

Senator MORGAN. But these various unhealthy localities of which you speak have the right or power to obstruct our commerce and our work on that canal to a degree that is absolutely intolerable. They have the power to do it?

Secretary TAFT. Yes, sir; they have that power. But, on the other hand, we want to exercise a very strict quarantine ourselves.

Senator MORGAN. I know you do.

Secretary TAFT. In order to preserve the health that is absolutely essential to the construction of this canal.

Senator MORGAN. Well, it is a great question. I merely call your attention to it that you may reflect upon it.

Secretary TAFT. Yes, sir.

Senator GORMAN. Mr. Secretary, this suggestion as to not putting on proper steamers between Panama and San Francisco and leaving the freight to accumulate is the result of your order breaking up the monopoly, is it not?

Secretary TAFT. Yes, sir.

Senator GORMAN. It was intended as a punishment for that action of yours?

Secretary TAFT. Yes, sir; that is it.

Senator GORMAN. Will not the volume of trade soon correct itself?

Secretary TAFT. I am hopeful that it may. We shall use every effort that we can to induce some other company to come in there, possibly with a suggestion that the situation might become so intolerable as to require Government action, and see what negotiation will do. I do not despair of the situation at all; I only brought it before the committee to explain a difficulty that presents itself there.

Senator GORMAN. Do they obstruct you on this side, between New York and Colon?

Secretary TAFT. No, sir; we have our own line there.

Senator GORMAN. I know; but with their steamships is there any attempt or any evidence there of obstruction?

Secretary TAFT. They have none on our side. The Panama Railroad Company was doing a little monopolistic business of its own on this side. It controlled all the wharves at Colon, and it doubtless made profitable this arrangement with the Pacific Mail Steamship Company by shutting out everybody on the Atlantic side. Wharf charges and facilities for berthing and all that sort of thing were made with a view to having no other company in there at all but the Panama Railroad Company. Under our direction that has been changed. There is a competing company, the Royal Mail Steamship Company, that runs from London to New York, to Jamaica, to Cristobal, and then back again to Jamaica, and the steamers of that company offer better facilities for passengers, I believe, than our own steamers.

Senator GORMAN. That is an English line?

Secretary TAFT. That is an English line; yes, sir. In other words, we have no desire to exercise our powers to shut out anybody. We want to make the trade down there as free as possible.

The CHAIRMAN. Mr. Secretary, is there not a German line also at the present time.

Secretary TAFT. Yes, sir; there is a German line; but does the German line come from New York?

The CHAIRMAN. I thought it did.

Secretary TAFT. Oh, there are both German and French lines that come directly from Europe.

The CHAIRMAN. I thought there was also a German line running to New York?

Secretary TAFT. It is possible that there is.

Senator KNOX. Mr. Secretary, if the Pacific Mail Steamship Company should persevere in that policy to such an extent as to become a nuisance to the Government by reason of the congestion of freight on the Isthmus, and work an injustice on shippers, do you see any reason why, under our coastwise laws, we should not impose some penalty on the company for not giving people proper facilities? We have absolute jurisdiction over that question.

Secretary TAFT. Oh, I think you might very well do it. Of course service rendered in that way is not always very good service; but still—

Senator KNOX. Well, it is akin to the law that is enforced now with respect to railroads, that they must furnish proper facilities and equal facilities, and not by their perverseness hamper commerce instead of carrying it on.

Secretary TAFT. Yes, sir; I would be glad if, in this matter, you examined Mr. Stevens at considerable length, because he is familiar with the details of it.

Senator KNOX. That would be a very direct way of getting at the facts.

Secretary TAFT. Yes; it would.

Senator KNOX. And an effective one.

Secretary TAFT. It would; and I may add that we have troubles enough. We have no desire to go into business on the Pacific side, I can assure you.

Senator HOPKINS. I should think that a new line of steamers could be established there, or that these tramp steamers that are owned by Americans could take the trade.

Secretary TAFT. There are practically no tramp steamers owned by Americans, however.

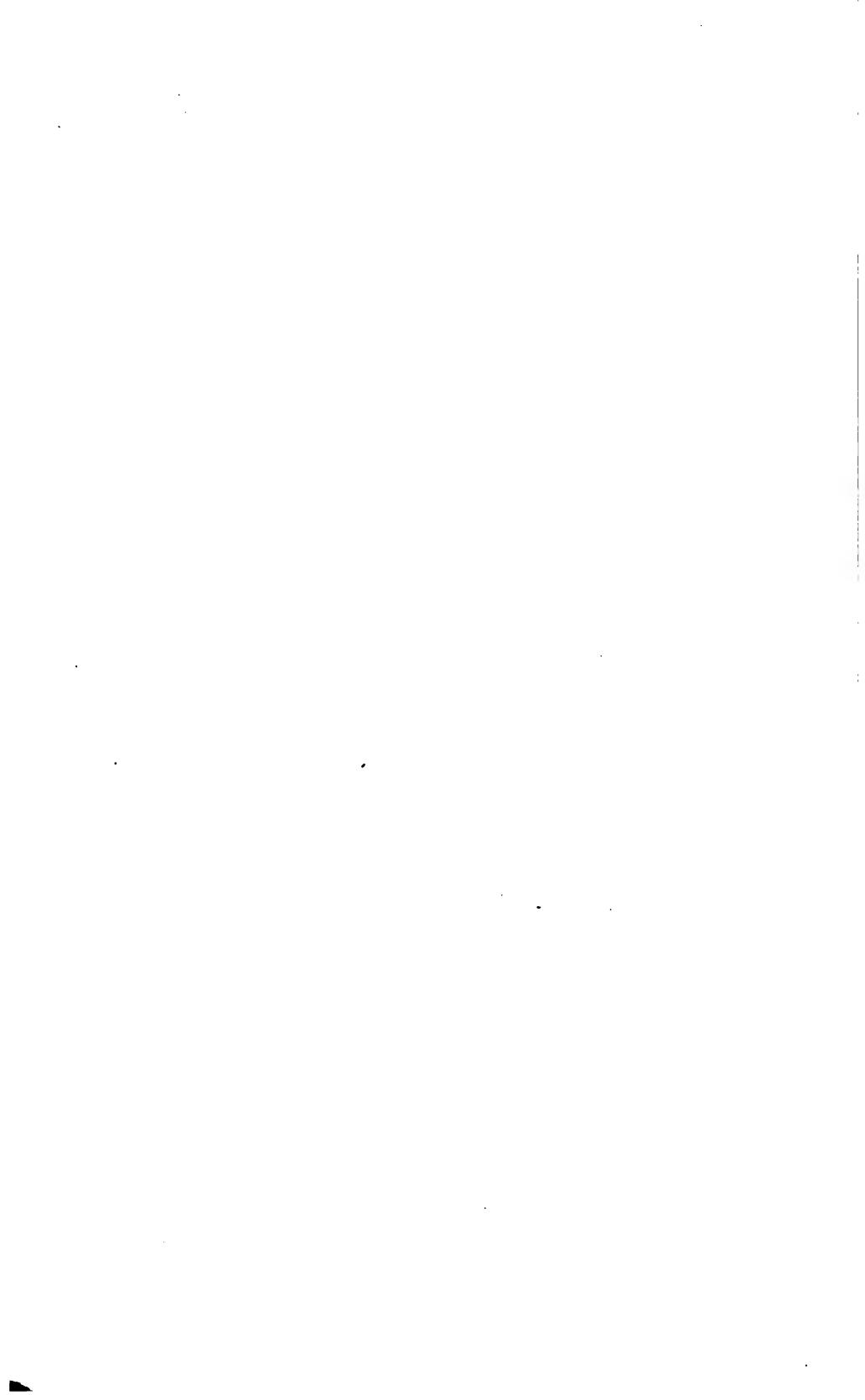
Senator GORMAN. You must have a line of steamers, too, must you not?

Secretary TAFT. Yes, sir; you must have regular sailings if you are going to do any business that is worth the doing. Of course there is this consideration: The minute such a thing is suggested in California it will meet the wild acclaim of everybody on that coast; and I rather hope that this matter will not be given publicity, because the people there desire just that thing—that we should establish a governmental line on that side as well as on this.

Senator GORMAN. That is true.

Secretary TAFT. And the pressure from there would be very great if it became known that there was any reason for hoping that such a thing might be done.

(The hour of 12 o'clock having arrived, Secretary Taft was excused for the present, with the thanks of the committee, and the committee adjourned until Tuesday, January 16, 1906, at 10.30 o'clock a. m.)



# ISTHMIAN CANAL.

---

WASHINGTON, D. C., *Tuesday, January 16, 1906.*

The committee met at 10.30 o'clock a. m.

Present: Senators Millard (chairman), Kittredge, Dryden, Hopkins, Knox, Ankeny, Morgan, Gorman, Taliaferro, and Simmons.

Present, also, John F. Stevens, esq., chief engineer of the Isthmian Canal Commission.

## STATEMENT OF JOHN F. STEVENS, CHIEF ENGINEER OF THE ISTHMIAN CANAL COMMISSION.

The CHAIRMAN. I will state to the gentlemen of the committee that Mr. Stevens is very anxious to get along with this work and with his other work and to get away to his place at Panama. So I will ask you, Mr. Stevens, to proceed now and give us, in your own way, a history of the conditions at the Isthmus as you found them when you went there and up to the present time. Of course any Senator can ask any questions he may desire. Will you proceed now, Mr. Stevens?

Mr. STEVENS. I arrived on the Isthmus and in the town of Panama on the 26th of July last, and, of course, my first work was to look over the situation in a general way and determine in my own mind what was going on, along what lines, and what they were attempting to do. I found the work divided substantially as it is now—the work of government under Governor Magoon; the work of sanitation, which is also under Governor Magoon, in charge of Colonel Gorgas; and what is known as the bureau of construction and engineering, which was the chief engineer's special province.

Senator HOPKINS. Those were the divisions that were made under the order of the President, were they not, and the Commission?

Mr. STEVENS. Yes, sir. In addition to that there was a bureau of materials and supplies, which was directly under the purchasing agent here in Washington, with an assistant on the Isthmus.

The only bureau, so called, that the chief engineer under the new organization had anything to do with was the bureau of engineering and construction. In other words, of course, he had nothing to do with the governmental duties, nothing to do with the sanitation, nothing to do with the accounts, and nothing to do with the supplies. All the connection that he or his department had with the supplies was simply to make requisitions on them from time to time as they were needed.

Of course only in a casual way can I say anything in regard to the sanitation and the work of all these other departments of which I was not directly in charge. I found a comparatively large force of men, both skilled men (that is, doctors, sanitary people) and laborers, engaged in various kinds of work, most of which was altogether new to me—that is, the fight against mosquitoes and filth, particularly against mosquitoes. They were draining swamps and cutting grass

and weeds around the camps. They were engaged in clearing away the filth from Panama and Colon and the other smaller towns between, running hospitals, and work of that sort. Their work seemed to me then, and does yet, to be very thorough, and I can only judge, of course, of the value of the work by the results.

As far as supplies and materials were concerned, there seemed to be a decided lack of organization or lack of results. Among the most bitter complaints that I have received, particularly in my department, were as to the impossibility or the impracticability of getting materials when they were called for. And in tracing those reports and complaints down I found they largely originated from the fact that there was no supply of lumber there.

Apparently orders had been placed several months before for large quantities of lumber, but very little of it had been delivered, and it had not come properly classified. You understand that the greatest use for lumber there, then and now, is for building quarters and houses. A comparatively small amount is needed for anything else—that is, large lumber, whereas apparently in the shipment of this lumber, which came principally from Puget Sound, they had not taken pains to ship first what was needed first.

That of course threw the building department, which was engaged in repairing the old French houses and constructing new ones and quarters, into a little confusion, all of which it took some time to straighten out; and it has not been until the last forty or sixty days that I can say that the situation in that respect has been fully satisfactory.

With regard to other construction materials, I could not find any particular cause for complaint, taking into consideration the distance we were from supplies and the newness, you may say, of the project.

With regard to accounts and pay rolls, they had put in a system of keeping time and making pay rolls that did not seem to be satisfactory. There was altogether too much delay and slowness in paying; the men were dissatisfied—not what I call the gold men; and the “gold men” there are the white men. That is the broad distinction. The silver men are the black men. That is, of course, you understand the plan of the currency, that silver is one to two; and almost all the black laborers (who are practically the only common laborers) are paid in silver, and the whites in gold. A short time after my arrival there, after we had several consultations, a new system was put in force, which for a while did not seem to promise very much better, or in effect to be very much better, than the old.

Senator KNOX. Was that distinction in the pay observed where whites and blacks were doing the same kind of labor?

Mr. STEVENS. Whites and blacks do not, Senator, do the same kind of labor.

Senator KNOX. They do not do the same kind?

Mr. STEVENS. Practically, I do not suppose there are ten white common laborers on the work, out of the thousands of employees there.

Senator KNOX. Then there is no distinction based on color in respect to the wage, whether it is paid in gold or silver?

Mr. STEVENS. No, sir. There are a few white employees, I believe, that are paid in silver; but the aim has been to have what we call the gold roll the white roll.

Senator KNOX. The distinction is in the character of the labor?

Mr. STEVENS. Yes, sir; the common labor is the silver roll.

Senator DRYDEN. Can you testify as to whether these blacks went to the Isthmus on the understanding and the promise that they would be paid in gold, and, when they got there, found that they were paid in silver?

Mr. STEVENS. I never heard any such statement until I saw it in the newspapers.

Senator HOPKINS. Was there any dissatisfaction among the colored laborers over receiving their pay in silver, to your knowledge?

Mr. STEVENS. None that I ever heard of. The dissatisfaction was because they were not paid more promptly.

Senator DRYDEN. Was it your understanding, Mr. Stevens, that they being paid in silver, the amount of silver they received was taken into consideration, so that they got the equivalent of their labor that they expected?

Mr. STEVENS. Of course I do not know what they expected, Senator.

Senator DRYDEN. Well, what they were promised?

Mr. STEVENS. Yes, sir; what they were promised; yes, sir.

Senator HOPKINS. That is, the contract price was paid?

Mr. STEVENS. Yes, sir; in every case.

Senator TALIAFERRO. Why was the distinction made between gold and silver?

Mr. STEVENS. I could not tell you, sir. That was before my time. It was something that I inherited and found there. I presume it was because silver is the current coin of the realm, and it was decided to be better by the authorities to use that and to encourage the use of it. I do not know any other reason. It is only hypothetical on my part.

The CHAIRMAN. Gentlemen, would it not be better to let Mr. Stevens go right along with his statement, and then, when he is through, for each one ask him such questions as you desire?

Mr. STEVENS. The new system of accounting and pay rolls went into effect and, as I say, for a while, for several pay periods, it did not seem to be satisfactory; but there was improvement. There was a great deal of complaint; but as the men got more used to it, as the time-keepers and clerks became more proficient, a great deal of improvement has been made, until in the last sixty or thirty days (the last thirty days especially), I think it is fairly satisfactory. As far as I can see, and as far as my knowledge extends, you understand, the labor roll is paid semimonthly—twice a month. The pay period ends on the 15th and the 30th, or on the 31st, as the month may end; so that really we are paying practically all the time.

Our aim was to get the paying of any period done in at least from seven to ten days after the expiration of the pay day, if it could possibly be accomplished. We are getting down now to very near that—somewhere about ten days, I suppose would be the average—and I think that will compare favorably with the time of payment of any large bodies of men in the world, so far as I know. Of course on railways we only pay once a month, and 90 per cent of the railways employing large bodies of men pay on the 15th—which is fifteen, sixteen, or seventeen days after the end of the pay period, which is the 30th or 31st of the preceding month.



As far as my observation goes now, there is no reason for complaint generally in regard to the time and method of payment. The number of men and accountants might possibly be made less; I only look for results.

In regard to construction and engineering, about all that there was going on, you might say, in the construction of the canal proper was in Culebra cut, so-called. Culebra cut extends from the little town which is called Bas Obispo to Pedro Miguel, covering about 8 miles. I think you can see it on the map there, if you are acquainted with it. Of course in the case, particularly, of a sea-level canal, it will be cut from one end to the other.

What is known as the Culebra cut is the cut through the mountain proper, which extends for about 8 miles—that is, after you leave, going south, the valley of the Chagres River, you follow a branch or a low valley of a branch of the Chagres called the Obispo, and across the summit, and then down what is known as the Rio Grande. But the heavy mountain cutting extends over these 8 miles which I have described, and the heavy part of that is near the town of Culebra; and in this vicinity I found, I believe, 11 steam shovels working. To my idea they were working apparently without very much system. The only part of the plant that was adapted for that sort of work was the shovels. They were first-class new machines first class in every respect.

They had been bought since the American régime; and with the exception of these shovels, the balance of the equipment which was being used was the old French equipment—of which, of course you are all aware, there was millions of dollars' worth on the Isthmus, principally scrap. This old equipment undoubtedly, from a continental point of view, twenty-five or thirty or forty years ago, whenever it was designed, was suited to the time—both the engines and the cars; but as far as doing economical work now is concerned, I do not think I am putting it strongly from my point of view when I say that I would take the money and throw it into the river or put it into the furnace and burn it just as quickly as I would undertake to use it in operating that plant. It is absolutely unsuited for the purpose.

Senator GORMAN. Does that apply to the whole of that equipment?

Mr. STEVENS. That applies practically to the whole of the old equipment.

Senator HOPKINS. That was received by this Government from the French Company?

Mr. STEVENS. Yes, sir.

Senator DRYDEN. Have you any means of knowing how much that cost the Government?

Mr. STEVENS. I understand it cost nothing.

Senator KNOX. We bought it all for a lump sum. The act of Congress provided that \$40,000,000 should be paid for the rights and for the property that was on the Isthmus and the archives of the company. We just made it a lump sum.

Senator DRYDEN. I understand Mr. Stevens to say that this worthless machinery, which he has just alluded to, really cost the Government nothing.

Senator KNOX. Whatever the cost was, it was estimated in that forty millions when the Commission originally estimated the value of the property.

Senator GORMAN. A little over three millions.

Senator KNOX. Yes; I think they did make an estimate of that.

Mr. STEVENS. I understood it was allowed nothing in the detailed estimate. However, I do not know anything about that.

Of course the question of the Culebra cut is a question of the disposition of the material. In other words, there are so many million tons of freight that must be loaded, must be transported, and must be delivered to the consignee, whether the consignee is in the ocean or whether it is in a dump on the land. That is, it is a problem of transportation. Now the great advance in railroading in the last twenty years, particularly (more than that, but more particularly the last fifteen or twenty years), has been in the direction of heavy train loads and reduction in the cost of transportation, which has been effected very largely through those means. The only way to increase train loads is to increase the weight of your carloads and to increase the weight of your engines—in other words, to increase the net of productive train load.

In the case of these so-called French engines (the majority of them are really Belgian engines, made in Belgium), I do not carry in my mind just what their power is, but I should suppose about six to eight thousand pounds drawbar pull, back tender. A heavy modern freight engine carries a drawbar pull of thirty-five to thirty-six thousand, and a heavy passenger engine, say, twenty-five to twenty-seven thousand, with grades of freight engines running to anywhere from twenty two or three for fast-freight stock trains, etc., carrying refrigerating business, up to thirty-five for the heavier ones.

In other words, these engines down there had a capacity of from one-fifth to one-sixth, say 16 to 20 per cent, of the standard of economical railroading in the United States, where I think probably we handle, and, in fact, I know we handle, freight cheaper than any country in the world.

Senator GORMAN. How many tons would that be to the train load?

Mr. STEVENS. It depends entirely, Senator, on the grades and the character of the roadbed.

Senator GORMAN. I mean, comparing the two, the Belgian engines and those that you have?

Mr. STEVENS. The Belgian engines will handle, we will say, on a four-tenths grade (which is the maximum grade on a large number of our heavy freight lines in this country) probably 60 to 80 tons, possibly 100 to 125, depending entirely on the character of the road; and the other engines would handle 2,000—from 1,500 to 2,000. I handled as high as 44 cars and 100,000 pounds on each car with an engine not as heavy as I describe, on the Great Northern; but then I had better grades than that.

Senator GORMAN. What is the train load on this road in moving the dirt from the cut?

Mr. STEVENS. We have never made any test of that.

Senator GORMAN. You have not?

Mr. STEVENS. No, sir; we are not moving that class of material.

Another thing in regard to the construction of these engines is that they are fitted with what are called rigid wheels. Just imagine that this desk made a box, an absolutely rigid box, not like a basket that will weave a little and give on the inequalities of the track, but a rigid box, with the axles carrying two pairs of wheels fastened on

rigidly. You know what the result of that would be on a fairly good road—you would have lots of derailments. And these cars there, something over three thousand of them, were of very small capacity, carrying from 6 to 6½ or 7 yards of material. They looked like an exaggerated scoop shovel set up on top of a train, higher than a man's head. They were supposed to be side dump cars.

Those were the cars and that was the kind of equipment they were using. They had, and have yet, which I am using now in my preliminary work down there, four or five engines which were built in the United States by the old Cook and the old Rogers people, of Paterson; but they were very small engines. They were infinitely better, however, than the Belgian engines, because they could keep them on the track.

As to the tracks there, the French laid there—we do not know how many miles of track. Every time I make an expedition out into the jungle I find a new railroad. I presume it is fair to say that they had from 200 to 250 miles of tracks laid there. They used an old antiquated rail which is 5 meters (about 18 feet) long, and it is a very poorly designed rail, weighing, I should say, about 62 pounds to the yard. It is about three-quarters of an inch higher than it is wide on the base. The consequence was, particularly on tracks with no ballast, with no tie plates, and with soft ties, that those rails are continually turning over, not only on the curves, but on straight lines, on a tangent; and the net result was that I do not think over 15 per cent of the effective value of the steam shovels was being realized.

Senator KNOX. Let me ask you a question here. Are you speaking now, when you speak of the railroad and of this type of equipment and of this weight of rail, of the railroad proper?

Mr. STEVENS. Not of the Panama Railroad.

Senator KNOX. The railroad incidental to the construction of the canal?

Mr. STEVENS. I am talking about the canal tracks.

Senator KNOX. The canal tracks; not those of the Panama Railroad?

Mr. STEVENS. Not the tracks of the Panama Railroad at all. That is a different proposition.

Senator KNOX. Yes; that is what I wanted to get clear in my mind.

Mr. STEVENS. This work which is going on, it seemed to me, was not being done with any view of a definite plan for work hereafter. It was simply wherever they could put a track that led to a fairly easy place to move material, to put a steam shovel in there and dump some of that material and haul it up hill to these waste banks on the side.

Senator MORGAN. Mr. Stevens, allow me to ask you right there this question: Was the condition you are now speaking of, in regard to the tracks and cars and all other matters of equipment, transportation of material out of the cut and dumps, the situation in which the French left the work, or the situation in which it was left after we had been in charge for some months?

Mr. STEVENS. It was the situation as I found it on, say, the 1st of August last. Of course, I do not know anything about the condition previous to that time, Senator.

Senator MORGAN. You do not know how that situation was brought about—whether it was by the French or the American engineers?

Mr. STEVENS. No, sir; I do not.

Senator MORGAN. That is all.

Senator HOPKINS. But you know that what track you found there was laid by the French Company, rather than the Americans after we got control, do you not?

Mr. STEVENS. That is what I assume; I assume that the French laid them. They were called the French tracks. That is all I know about it.

Senator HOPKINS. Yes.

Mr. STEVENS. As I said, I could see no definite plan that these shovels were working on, excepting getting out a little material at very heavy expense; and after taking a few days—ten days or two weeks (I do not recollect exactly what)—to look over the general situation, I made up my mind that we were throwing money away. The thing to do was first to stop that waste of money in that work, and try and direct it along channels that would be effective at some time in the future toward some well-defined plan of taking out the cut.

Senator MORGAN. Mr. Stevens, let me ask you right there whether what was taken out before you got there was carried to the same dumps that the French used?

Mr. STEVENS. Yes, sir.

Senator MORGAN. Did our engineers continue to use those dumps afterwards?

Mr. STEVENS. Yes, sir.

Senator MORGAN. After you were placed in charge, did you continue to use those dumps?

Mr. STEVENS. Yes, sir; to a certain extent I did.

Senator MORGAN. Will any of them have to be removed a second time in the construction of this canal?

Mr. STEVENS. I think to a slight extent; nothing that we have been doing lately, however. Since the Americans have been there they have been hauling the earth away back; but I think some of the old French dumps, probably going back to the time of De Lesseps, will have to be removed—depending entirely, of course, Senator, on the type of canal that is adopted.

The first thing I ran foul of in the way of trouble or difficulty was to determine what I could do in view of the fact that I did not know what was wanted. In other words, it was as though I had been told to build a house without being informed whether it was a tollhouse or a capitol. So it was very largely a matter of guesswork or judgment as to what to do, what banks to put in, how to endeavor to arrange a system of tracks for handling the cut, etc., in view of the fact that I did not know what sort of a canal was going to be built.

Senator MORGAN. Let me ask you right there whether that was because you did not know upon what plan the canal was to be built—whether it was to be a sea-level or a lock canal?

Mr. STEVENS. Yes, sir; yes, sir.

Senator MORGAN. It was due to that fact?

Mr. STEVENS. Yes, sir; it makes a material difference, although it has been said (and very truly, too) that you can do a certain amount of work which will be applicable to either type. That is true to an extent, but only to an extent. The question looms up in almost every direction.

As soon as I could determine on a general plan, which was very quickly, I started selecting the French tracks which, in my opinion, could be used in the further construction of the canal, the final construction, taking out these old rails and ties, taking the tracks out of the mud, laying new rails, putting in new ties, and ballasting the road; and I started grading other tracks and laying them with heavier rails—70-pound rails, new rails—and building new tracks. That work has continued up to this day, and the only steam-shovel work which we have done since that time, which was about the time of stopping the 11 shovels, is that I presume we have averaged from 4 to 5 and possibly 6 shovels during that time, simply doing the grading necessary to put in these new tracks and to shape up the cut, which was left in very bad shape. It is gouged here and there.

There was no continuous work being done; that is, you could not find half or three-quarters of a mile where you could lay a continuous track and have a straight face to work on. There was a little dug here and a little there. All of those irregularities will have to be smoothed out and your tracks laid, and that is the work that has been going on since the middle of August. We have made no effort to make what we call yardage to make a showing, but simply to get these tracks ready.

In regard to the method of doing the work and the amount of work, I found that the only equipment which had been bought was the steam shovels, with the exception of 300 so-called western steel scraper dump cars—a car made, I think, near Chicago somewhere, having a capacity of about 14 yards. They have standard trucks, and they are splendidly built cars. But they are what is known as side-dump cars; that is, you load the material on the top and drop the body over, and it is supposed to dump, and in wet weather we found some trouble with the twenty-four new cars that had been delivered with the wet material. We found the same trouble that we found with the French dump cars, that they would not clear. The clay will stick to those cars.

Senator KNOX. Are they steel or wooden cars?

Mr. STEVENS. They are steel cars; well-built cars that were ordered by the former chief engineer to the amount of three hundred. At the present time there have been delivered on the Isthmus 150 of those, cars knocked down—that is, parts of them. I think that up to date we have succeeded in erecting about 60 or 70 of them.

In addition to those the Commission bought or contracted for 500 flat cars, with steel underframes and with wooden floors. Of these there were being delivered, about the time that I arrived there, 250. These were all immediately placed in the service of the Panama Railroad.

The only use that the Commission has had of them has been simply through the Panama Railroad handling its supplies. Not one of them has been used in any way in the work around the canal proper. So that in effect all of the equipment which I had for transportation was simply what I found there, and it is either a question of shutting down everything and preparing no trackage for the future or using those cars.

The double-tracking of the Panama Railroad, which I will explain later, over which the great bulk of this material must go, had been commenced, and a few of the lighter cuts had been taken out, but

none of the fills had been made, on the theory—which is correct—that the fills should be made from the waste from Culebra cut. But the difficulty came here, that we had no equipment that we could run over the Panama Railroad without blocking the entire railroad. These engines, and particularly the small cars—I made several very sorrowful experiments with them—are not capable of being run over four or five miles an hour with safety on account of these rigid trucks.

They will not keep on the tracks, so that I had very largely, as brought out a few moments ago, to dispose of this material, which I was absolutely obliged to take out; and then, to get these tracks in, I had to take it out the shortest haul I could and dump it in these old French dumps. There was nothing else to do with it. In fact, we got so hard up for equipment on the Panama Railroad during what is called the congestion that I made the experiment of using some of these old French dumpcars. I was desperate; I had nothing else to do—to haul coal from Colon to Panama. The result was that I laid out every passenger train that I had on the road, and practically blocked the road all up for 47 miles.

It took from 7 o'clock in the morning to 4.30 in the afternoon to haul 16 cars across the Isthmus and keep them on the track. In fact, I did not keep them on the track; they went off the track nearly all the time. I have told you that to illustrate the impossibility of going on with the double tracking where we have to use the Panama road and get out of the way of regular trains.

What I want to emphasize is this: If I had had all the steam shovels in the world, all the money in the world, and all the men in the world, or anybody else there, they could not have gone on with the excavation of Culebra cut without the plant to haul the material away, because that is a transportation proposition.

Senator TALIAFERRO. What is the present condition of that railroad construction for canal purposes?

Mr. STEVENS. It is going on in very good shape. We have been short of force for the last thirty or forty days to a certain extent; but it is going on all the time, steadily, looking to a definite plan for taking out the cut.

Senator GORMAN. How have you progressed in the delivery of this new equipment of cars?

Mr. STEVENS. There have been ordered for the Panama Railroad 24 engines; Mr. Wallace ordered them. I have not the exact figures as to the amount of business—the comparative business, the tonnage—that the Panama Railroad is handling, excluding the Commission's supplies and material, and equipment. But they are handling a great deal more than they did ten or fifteen years ago, and they have not 10 cents worth more equipment than they had in those days, when it was all they could do then. That statement is broad, but it is comprehensive, and absolutely correct.

Senator TALIAFERRO. Except these flat cars?

Mr. STEVENS. Except these flat cars, which were delivered along last summer.

Senator KNOX. Mr. Stevens, in order that I may get definitely in my mind what you mean by this reference to the railroad and railroad system, do you contemplate, when your track system is completed, for the purpose of hauling off the spoil of the excavation, that the Panama Railroad itself will be utilized in that connection?

Mr. STEVENS. Yes, sir.

Senator KNOX. Or will it be done independently?

Mr. STEVENS. Oh, no; it can not; it must be handled over the Panama Railroad.

Senator KNOX. Then this system of roads which you are building into the Culebra cut is auxiliary to the main road?

Mr. STEVENS. Yes, sir.

Senator KNOX. And that makes the necessity for a perfected equipment all the greater?

Mr. STEVENS. That is it.

Senator KNOX. Because the main line must be used to carry this other spoil?

Mr. STEVENS. Yes, sir. You may say, to illustrate, that here is the main line of the Panama Railroad. Now, at different points tracks come out of the cut. Here is the big cut; tracks come out of that cut—spur tracks, leading this way and that way. Then we have the tracks that the steam shovels work on that we are now putting in.

Senator KNOX. The Panama Railroad is the trunk line?

Mr. STEVENS. Yes, sir; and the double tracking I refer to is simply making another main line to handle that enormous traffic.

Senator SIMMONS. Clear across the Isthmus?

Mr. STEVENS. I do not know whether we will go clear across the Isthmus or not. We may or may not. That depends, again, on the type of the canal.

Senator SIMMONS. It is not necessary for that purpose?

Mr. STEVENS. I do not think so; no, sir.

Senator KNOX. These lateral lines are temporary?

Mr. STEVENS. They are temporary.

Senator KNOX. And may be taken up and moved to other places as the work progresses, as I understand?

Mr. STEVENS. Exactly. The probabilities are, though no mortal man can make an estimate now, that there will have to be 250 or 300 miles of tracks laid during the completion of that cut, particularly if it is a sea-level canal.

Senator KNOX. That would not necessarily mean, though, new rails?

Mr. STEVENS. Oh, no.

Senator KNOX. But the substitution, the taking up of old rails in one place and putting them down where they are needed?

Mr. STEVENS. That is it, exactly; what we call, in railroad construction, throwing tracks, moving them from one place to another.

Senator KNOX. Yes.

Mr. STEVENS. Another thing that I had to consider immediately was the fact of equipment. As I say, nothing has been ordered except these 300 cars. There had been ordered a couple of dozen of two or three different kinds of dump cars, merely as a matter of experiment; and out of those two or three small orders there have been, up to the present time, twenty-four delivered of certain kinds of dump cars. I think Mr. Wallace's idea was—in fact I know it was—that he would get these cars there, and then he would experiment over a long period of time before he made up his mind what kind of cars he wanted.

Of course that meant a very long time in getting the cars delivered, and a still longer time before the experiments could be tried; and

after considering the matter thoroughly I made up my mind that during the wet season, the only car that could be used, the only car that wet material could be unloaded from, was a flat car with a plow; and I ordered 800 of them. I also ordered 120 first-class modern engines, none of which have been delivered; and none of the cars have been delivered. I also ordered plows, steam unloaders, and minor equipment of that description.

Senator TALIAFERRO. You ordered 120 engines, did you say?

Mr. STEVENS. Yes, sir; and the delivery was all arranged by contract. I say I ordered these—you understand, of course, that I request Mr. Shonts and the Commission to purchase them, which they do. As to those 120 engines, the purchasing agent told me yesterday that he expected a few of them to be delivered in January, and that the delivery would close in June. That is about according to contract; but you understand that when an engine is delivered on the Isthmus it is delivered in pieces. We have to take it in our little shops and put it together, which means that it will probably be February before I will have the use of one of those engines. As to the 800 flat cars, we expect the delivery to commence in February and to be closed in June.

Senator HOPKINS. Where do you get these engines and cars?

Mr. STEVENS. The engines are being built at the works of the American Locomotive Company, some at Schenectady, some at Paterson, and, I presume, some at Richmond. I do not know about the cars—I think they are being built in St. Louis, by the American Car and Foundry Company. Meanwhile the balance of the first order of 500 flat cars is going forward, and a shipload of them (I think 135 or 145) is now being unloaded at Colon, which is the northern terminus of the line. Of course then we will have to have them set up.

Senator TALIAFERRO. How many locomotives were ordered by Mr. Wallace, Mr. Stevens?

Mr. STEVENS. Twenty-four.

Senator TALIAFERRO. And have they ever been delivered?

Mr. STEVENS. Twelve of them have been delivered, and the balance are between—I think they were built at Schenectady; between there and New York, on the road.

Senator TALIAFERRO. How many did I understand you to say the Panama Company had ordered?

Mr. STEVENS. Those are the ones I mean; 24 were ordered previous to my connection with the road.

Senator TALIAFERRO. And you have ordered 120?

Mr. STEVENS. One hundred and twenty; yes, sir. The balance, as I say, of the 500 flats are now going forward. Probably by the middle of February we will have them all set up and have the use of them.

Senator SIMMONS. How did you say you unloaded those flat cars?

Mr. STEVENS. With a plow. We have a big plow, you know, with side stakes on the flats, stakes about 3 feet high, and then we have a great big plow on the plow car. A cable is fastened to that and runs through to the forward end of the train, where there is what we call an unloader, which is simply a hoisting engine, a steam engine, with a drum that this cable runs on. The engineer stops his train at the point where it is to be unloaded, throws the steam on, simply pull-



his plow right through the train of flat cars, and unloads the whole of it.

Senator HOPKINS. That is for the wet season. Would it work in the dry season just as well?

Mr. STEVENS. Yes; it will work better than that in the dry season, but it can be absolutely depended upon when it is wet too. Now, that is one thing that I have been criticised for, and I will be still more, I presume; but that is a plan that will take care of that material. It is an open question yet among construction men—men who handle heavy construction—whether the flat car or the dump car is the more economical. But I do know this, that no dump car that I have yet ever seen would handle that material while it was wet.

It was absolutely necessary, therefore, to adopt some such plan as that, unless we were to subject ourselves to nine months a year more delay. I knew that the flat cars could be used. I knew that they could be used economically—probably as much so as any other car. I knew that it was a grave question whether the other cars could be or not. Therefore I took the chance of getting the flat cars, knowing that they could be relied on.

Senator MORGAN. Mr. Stevens, I want to ask you a question. In regard to the remaining work to be done through Culebra and Empedador, for instance, nine or ten or twelve miles, do you rely upon the steam shovel as being the most efficient of the agencies at your command?

Mr. STEVENS. I think so, for dry work.

Senator MORGAN. How about wet work?

Mr. STEVENS. Do you mean below the sea level?

Senator MORGAN. No; I mean work that is made wet by the rainy season.

Mr. STEVENS. Oh, the steam shovel will handle that all right.

Senator MORGAN. It will handle it all right?

Mr. STEVENS. And the side drains that come in can all be controlled.

Senator MORGAN. How about rock that has to be blasted out?

Mr. STEVENS. That is all right. I have handled pieces measuring as high as 5 yards with those shovels; I have picked them up with the teeth and laid them on the cars.

Senator MORGAN. The steam shovel, then, is an efficient tool?

Mr. STEVENS. I think it is the best tool that has ever been built up to date to handle that class of material.

Senator MORGAN. And you rely upon it more than any other agency, or tool, or power?

Mr. STEVENS. Oh, yes; altogether. You understand that the Culebra cut is what we call a blasting cut. It is rock of different degrees of hardness, from very soft rock through all the medium grades to extremely hard rock, with a certain amount of earth. The earth was very largely on top, and has been removed to a great extent by the old French company; and probably ninety per cent of everything that there is left to move—no matter what type of canal is adopted—is rock, and must be blasted before it can be moved by anything.

Senator MORGAN. Down to what level?

Mr. STEVENS. They have drilled to forty feet below sea level, and the same conditions obtain.

Senator MORGAN. Is the rock down to sea level from where you are working now?

Mr. STEVENS. Oh, yes; the same class of material.

Senator MORGAN. So that from your present workings down to sea level you would expect to encounter rock?

Mr. STEVENS. With the exception of certain places where we will find a thin skin, 8 or 10 or 15 or 20 feet thick in some places, of red clay, and in some places in the stratification of the rock we will find little seams of clay. But it must be drilled, all of it, excepting possibly a pocket here and there. As I say, over ninety per cent of it is rock.

Senator MORGAN. So that the work from the point you are at now taken to sea level is what the engineers class as rock work?

Mr. STEVENS. Yes, sir; that is, it must be shot—blasted.

Senator TALIAFERRO. Down as low as it goes below the sea level.

Senator MORGAN. I know, but I am talking about the sea level, because if it is that way to the sea-level, it is that way below, unless you happen to cut through it.

Mr. STEVENS. Yes; we know that, because we have drilled and taken cores out.

Senator MORGAN. It makes it more difficult to handle as you go down from sea-level to the depths.

Mr. STEVENS. There is some other equipment that has been ordered for the Panama Railroad in the shape of box cars and new coaches, caboose cars, but they do not cut any figure as far as Culebra is concerned.

I think I have made plain the situation with regard to equipment.

Senator ANKENY. Before you leave that, what do you do with that spoil—dump it?

Mr. STEVENS. We have been hauling it out to the nearest point we could over the old tracks, and dumping it on the old French dumps alongside of the mountain, until within the last—

Senator HOPKINS. How far do you have to go from the canal proper?

Mr. STEVENS. In a direct line, from the nearest point of the canal, I presume from 500 to 1,500 feet away. We have to go to make our grade, from half to three-quarters of a mile.

Senator ANKENY. Have you ample space there?

Mr. STEVENS. No; we have not.

Senator ANKENY. How are you going to provide for it?

Mr. STEVENS. I am going to haul it over the Panama Railroad.

Senator MORGAN. Let me ask you one more question about the working of the steam shovel—I never saw one.

Mr. STEVENS. Yes, sir.

Senator MORGAN. Is its most efficient work done above or below the level of the railway on which it is operated?

Mr. STEVENS. Ordinarily it is done above the elevation of the rails that the car it is filling stands on; although the modern shovel will dig eight or nine feet below the base of the rail and still load into the car, thirteen, fourteen, or fifteen feet above.

Senator MORGAN. But not deeper than 8 or 9 feet lower?

Mr. STEVENS. About 9 feet below the rails; that would be about 13 feet below the flat car.

Senator MORGAN. So that in laying your tracks with a view of economy you would have reference to work that could be done above rather than below?

Mr. STEVENS. Yes, sir. That varies with the kind of material. If the material is not inclined to slide, you can get up as high as 40 feet above the base of your shovel. Ordinarily about 30 or 35 feet is about right.

Senator MORGAN. Is the work that is being done there now encumbered or impeded by slides?

Mr. STEVENS. No, sir; not to any great extent.

Senator MORGAN. The former work was—you understand that, of course?

Mr. STEVENS. Yes; I understand it was. No; we are not being bothered by slides.

Senator MORGAN. Is this story true that trains and engines used by the French are still to be dug out of the ground there in some places?

Mr. STEVENS. I presume so. There is not a place along the whole Zone there, within any reasonable distance of the canal, but that you can find some French machinery.

Senator MORGAN. That means that there is a creeping or slipping from above that rushes down on the work?

Mr. STEVENS. I only know of two places, and at one of these places that was considered insurmountable I found there had never been any intelligent investigation made. The walls of rock where the cut had been made by the French and Americans had been taken out to a certain extent, and up above there was a slide coming in like this [indicating].

Here was a stratum of rock, and from here down, where the rock stopped, water was coming down here, trickling down—no great rush of water, but just seepage; and this slide, which ran back into the mountain here, was apparently a terrible thing. But I found that no one, neither the French nor the Americans, had made any scientific or practical investigation to find out the amount of that slide, and I think in September I put some engineers up there with some laborers and drills and commenced drilling to find how deep that slide was and to develop the extent of it. I have received since I have been in Washington a report from the engineer to the effect that so far as can be determined—and they have taken everything against them, so as to be sure that it is big enough—the “big slide,” so called, comprises 225,000 cubic yards.

Senator MORGAN. Is that sliding process, that creeping-clay process, from the heights down into the digging, accounted for by any specific estimate in respect to the cost of the canal, or is it included in the percentage?

Mr. STEVENS. It is included in the percentage.

Senator MORGAN. It is in the percentage?

Mr. STEVENS. Yes, sir. As a matter of fact, that is a small moving mass of wet clay. It does not come with a rush. It simply dribbles over the edge; and, in fact, it has not come at all this summer.

Senator MORGAN. I would like to ask a very few questions, if the committee is willing, in regard to this rock. What borings have been made there, either by the French or by the American engineers, along the axis of the canal, through the Culebra and Emperador Heights, as far out as Paraiso, that bluff there to the south, to ascertain what is the actual geological structure down to sea level?

Mr. STEVENS. There has been, over the entire stretch of which you speak, along the axis of the canal, almost constant drilling, I think, ever since Mr. Wallace went there; and I have kept it up until within the last thirty or forty days. I do not think there are any drills working now. Those drillings have gone down to different depths.

Some of them have gone to the sea level, and some below. In addition to that, Mr. Wallace drilled last year at every kilometer (that would be about every 3,500 feet, or something less than three-quarters of a mile) from Obispo—yes, he carried them, I think, from Bohio, certainly, through to Miraflores—he drilled down to 40 feet or more below sea level and took out cores. We have carload after carload of them at the office at Culebra, solid rock cores, showing what the material is. I can not give you the number of drillings which have been made.

Senator MORGAN. No.

Mr. STEVENS. Of course they are all matters of record; we have plats and maps that show them.

Senator MORGAN. The general proposition is this—and that is all we have got to deal with, I suppose: Has there been a series of borings along the axis of the canal, from, say, the gulch at Bohio out to Miraflores, that would indicate the material through which you have to work in the digging of the canal, whether at sea level or below sea level?

Mr. STEVENS. Yes, sir.

Senator MORGAN. Do you think that work has been done sufficiently to give us reliable information?

Mr. STEVENS. I think so; yes.

Senator MORGAN. Do you know whether a map of those borings, or any plat of them, has been made that is available for the use of this committee?

Mr. STEVENS. I have them on the Isthmus. I do not know—I think probably they are here. The consulting board, of course, drew very largely for data on us. Whether they have them in this office or not, I do not know. I know that they have them on the Isthmus. I have the old records of the old French borings, which may or may not be correct; I do not depend very much on them.

Senator MORGAN. As to the quality of the rock, basalt is the heaviest rock you have to deal with, is it not—the tough rock, called basalt?

Mr. STEVENS. Basalt; yes, sir.

Senator MORGAN. Where does that set in south of Bohio?

Mr. STEVENS. The first dike that we call basalt is at San Pablo, from a quarter to half a mile south of where the Panama Railroad crosses the Chagres River, on a long steel bridge.

Senator MORGAN. Now, coming on south?

Mr. STEVENS. Coming on south, the next dike of any consequence at all is at Bas Obispo. There is a very heavy dike there—a very sharp, heavy dike.

Senator MORGAN. What is the nature of the rock at Gamboa?

Mr. STEVENS. It is undoubtedly a volcanic rock, but I would not consider it an extremely hard trap rock.

Senator MORGAN. Not as heavy as the other?

Mr. STEVENS. I should not consider it so. Of course I have simply looked over the ground.

Senator MORGAN. It seems to be the general opinion that it is not as heavy at Gamboa; that it is not as stiff and intractable as it is at the other places you mentioned.

Mr. STEVENS. I have a better chance in the canal, where it has been cut away, to examine the formation. At Gamboa, of course, it is all grown up with jungle, and, as I recall it, it is 50 feet from the bed of the river to bed rock in the river.

Senator MORGAN. Now, pressing on still south, the first rise or elevation you come to is Culebra?

Mr. STEVENS. There is a general rise until you come to Culebra.

Senator MORGAN. And beyond that is Emperador?

Mr. STEVENS. Yes, sir. Emperador is north of Culebra.

Senator MORGAN. It is one ridge, with a dip between, is it not?

Mr. STEVENS. Yes, sir; Emperador is north of Culebra.

Senator MORGAN. North of Culebra?

Mr. STEVENS. Yes, sir—what was formerly known as Emperador, what we call Empire now. It is about one mile or a mile and a half away.

Senator MORGAN. Which is the rocky elevation through which you have to cut—Culebra or Emperador?

Mr. STEVENS. Culebra.

Senator MORGAN. Culebra? |

Mr. STEVENS. Yes, sir.

Senator MORGAN. The reason I inquired particularly about it was this—that I had a report yesterday from the Geological Survey, and they put Culebra, as I find now, on the wrong side of the situation.

Mr. STEVENS. Yes, sir. Well, Culebra, you know, is a general term, Senator.

Senator MORGAN. Yes.

Mr. STEVENS. What we call Culebra, the town of Culebra, is south of Empire about 1 mile, measured along the axis of the canal, or along the railway.

The higher mountains are at Culebra. On the east side of the cut, which is the left-hand side as you go toward Panama, is what is known as Gold Hill. Where the slope stakes or the side-formation lines would come, the natural surface of the ground is the highest. In other words, the highest point of the canal, not merely on the center line but on the side line, would be the highest point of any type of canal, the deepest cut. On the opposite side is what is called Contractors' Hill, and between those two hills was the original summit, the highest point.

Senator MORGAN. Let me see, now, if I comprehend the situation there. I have never been there, and do not know anything about it as a geologist at all, and can not even have any scientific imagination about it, but here is an outpouring from an ancient volcano of the stone that hardens into basalt. That is laid down in sheets something like this [indicating], is it not?

Mr. STEVENS. Well, the original rock, undoubtedly put in there by the water, lies in what you might call sheets, strata, and these dykes are injected through it.

Senator MORGAN. Then another explosion of that volcano or some other volcano lays another layer of the basalt above it, and the intervening matter is called the dyke?

Mr. STEVENS. The dykes are generally thrown up vertically through these strata, injected through.

Senator MORGAN. Yes; but intervening between these sheets or layers of basalt there are softer materials?

Mr. STEVENS. Yes, sir; there is some softer material.

Senator MORGAN. So that in cutting across it, when you come to the outcrop, we will call it, the upper elevation of the basalt sheet or layer, you cut through that, and then you pass a softer material until you get to the next sheet?

Mr. STEVENS. Yes.

Senator MORGAN. It is cutting across the upper edges of the basalt formation?

Mr. STEVENS. Yes, sir.

Senator MORGAN. Has it occurred to you, or have you had your mind drawn to this point, to ascertain at what distance from the coast, for instance, in the Bay of Panama the basalt ledges lift themselves up?

Mr. STEVENS. I did not quite get that.

Senator MORGAN. These basalt formations at the summit at Bohio, or Obispo, or wherever it is, on the north side of the axis of the canal, dip under; they have a decided dip to the south?

Mr. STEVENS. Yes, sir.

Senator MORGAN. Now, they curve and come up somewhere. Have you ever ascertained at what point in the Bay of Panama these basalt deposits, as I call them, reappear?

Mr. STEVENS. I suppose at Ancon Hill, which is right in the town of Panama, and Sosa Hill, which is a twin sister, a very much smaller one at La Boca, lying within a quarter of a mile of it; and then the islands in Panama Bay, from 3 to 12 miles out, are the same formation. I am not a geologist, but they look to me like it.

Senator MORGAN. Some of them are very high, are they not?

Mr. STEVENS. Well, Ancon is about 600 feet above sea level. Perico and Culebra and Flamenco, which are the islands at the mouth of the harbor, and larger ones farther out, are of practically the same formation to an unscientific eye.

Senator ANKENY. Are they the same height—600 feet above sea level?

Mr. STEVENS. I really could not tell you that; no, I should say it was not as high as that at Ancon. Still, they are quite high; they are peaks.

The CHAIRMAN. I do not think Mr. Stevens is through with his statement yet; are you, Mr. Stevens?

Mr. STEVENS. Well, I do not know how far you want to carry it. I could talk, you know, for any length of time.

The CHAIRMAN. I think we would like to have you go on until you feel that you are through.

Mr. STEVENS. I have told you some of the things that I have found as far as construction is concerned. Now, I had another proposition, which was the most discouraging of all to me, and that was the Panama Railroad. Mr. Taliaferro asked some questions about the Panama Railroad in reference to the tracks. The Panama Railroad runs, of course, from Colon, on the eastern or northern side, to Panama, on the western or southern side. La Boca is on a spur track

about  $2\frac{1}{2}$  miles west of Panamá. That is where the steel dock which we acquired from the French is located—on the Pacific coast, at La Boca. It has a first-class roadbed, well graded, with permanent masonry openings, and thoroughly ballasted—one of the best roadbeds I ever saw in all my experience. There are better ones in the United States, but it is better than the majority of the eastern roads.

Senator GORMAN. What is the maximum grade?

Mr. STEVENS. About  $1\frac{1}{4}$  or  $1\frac{1}{2}$  per cent to the mile; the curves make it in the neighborhood of 80 feet to the mile. The ties generally, especially those that were placed there years ago—that is, those that have not been put in during the last two or three years—are probably the finest in the world. Some of them have been there forty years and are as sound as the day they were put in. They are made of *lignum vitæ*.

Senator MORGAN. Are some of them mahogany or ebony?

Mr. STEVENS. *Lignum vitæ* and that class of wood. They are magnificent ties; they could not be better.

The rail, at the time the Americans bought it, was, I think, almost entirely very light and badly worn, practically worn out, weighing 56 pounds to the yard. I think that the French probably laid a few miles of heavy rail; I do not know. I took out some this fall that they told me had only been laid four or five years, but it was worn out. It was not heavy rail.

The rail has all been relaid with 70-pound rails from one end to the other, and I finished the relaying. Well, I say "I finished it"—there was 3 or 4 miles to lay when I left, and I assume that it is all laid. In fact, I was sure it would be, so I assumed that it was.

The bridges were old. In fact, the bridge across the Chagres River was an iron bridge, a girder bridge, and it has the reputation (and I have no doubt of it) of being the first girder bridge that was ever built in the world. It was built, I think, forty-seven years ago. Of course there are hundreds and thousands of them now that we travel over every month here. But all the bridges were, for modern traffic, too light—dangerously light—and one of the things I have had to do before we could run any of the new engines which we are now putting in is to strengthen every bridge on the road. I picked up a great deal of old French material in the shape of girders and I-beams, and we are working them in our railroad shops for strengthening many of the small ones. In the case of others, we have had to drive creosote piling under them and cap them and make them stronger, so that now we have got them so that we can take heavy power over the road.

The sidings were very few, most of them poorly located, and, in fact, there was not very much to the Panama Railroad, either as to railroad or equipment, except the roadbed, which, as I say, was excellent.

The docks were entirely insufficient, and for the last few years, at least, have been absolutely neglected, so far as I could see. In fact, during the worst of my troubles, in September, the main dependence at Colon broke down, so that I had to throw one-half of it out of service at the time of my greatest trouble and rebuild it.

On the La Boca or Pacific end we had one steel dock over 800 feet long, 48 feet wide, with two tracks on it, built by the French and acquired with the railway. That was about half supplied with

modern machinery in the shape of cranes, and before the time of the heavy Commission business was, no doubt, ample to take care of all the commercial through business that went over it; but it was entirely insufficient last summer, and is at the present time.

Our people had evidently realized that and they had commenced building a new wooden dock there. But owing to a delay in the delivery of piling and timbers it was practically at a standstill, and had been for a long time. The same condition prevailed at Cristobal, or Colon, where they had started to build two docks. Of course, I got busy as quickly as possible, and as soon as I got the material on the ground I reorganized the force and put it in the hands of the Panama Railroad to build, because their carpenters were more used to that work than house carpenters, and since that time we have completed those three docks. We completed them sixty days ago to such an extent that we could use them, although they were not done, with the result that to-day we can berth four ships at a time at La Boca, instead of two, as formerly, and we can berth about ten at Colon. In other words, we have increased our berthings there by four, and we are now using those docks.

The rolling stock of the Panama Railroad was and is yet (with the exception of these 25 flat cars which the Commission bought, and the 24 locomotives which were bought, of which twelve are delivered down there, and about three of which we have been able to get into service) antiquated to the last degree. The engines are very light, and while the company had kept them up in fairly good shape, they were totally unsuited to handle heavy business. Their cars are few in number and very small. Very many of the cars that are on there now were built thirty-five years ago, they tell me—littell 10 and 12 ton box cars, whereas up here, you know, we use 30 and 40 ton cars. The flat cars were old and small. They had nothing that they should have had to handle the business.

But in face of all the discouragement I found, I think, the worst congestion that I ever saw in my life over a similar length of track. I found from 13,000 to 16,000 tons of freight piled up at Colon in a hopeless mass of confusion. I found freight which they told me had been there for eighteen months. I saw papers some of which we afterwards found had been there over six months. I found that part of the rolling stock of the road was tied up under load by our own men with Commission stuff for Culebra and other points, some of which had been under load ninety days, and still the railroad was unable to move the freight because it had not the equipment.

However, you have all undoubtedly read about the congestion on the Panama Railroad.

Senator MORGAN. Let me ask you this question right there, if you please: Is it your opinion that that congestion was due to the difficulty of the situation as to the docks and the railroad situation?

Mr. STEVENS. It was a combination of causes that gave rise to it, Senator. In the first place, the rolling stock of the road was not and is not sufficient to handle the business of the road as it should be handled; neither the car equipment nor the motive power—that is, the engines.

Senator KITTREDGE. Do you refer to purely commercial business?

Mr. STEVENS. It is hard to separate them, because the Commission business must be handled at the same time as the commercial business.



Undoubtedly if they had only the same amount of commercial business that they would have if there were no canal being built there, they would be able to handle it fairly well.

Senator KITTREDGE. With the equipment they then had?

Mr. STEVENS. With the equipment they then had, although it was worn out and being worn out very fast. In fact, a lot of it had come to the end of its life, practically speaking, and everybody was complaining. Nobody could get his freight. I suppose there were 3,000 packages on the docks in Colon and Panama that there were no papers for. I could not tell, nobody could tell, what its destination or its consignees were. Then, I do not like to criticize, but the methods of the people who were operating the road were not, according to my judgment, the best in the world.

Senator KITTREDGE. If you will pardon me the interruption, was the condition you speak of aggravated by the condition of health on the Isthmus?

Mr. STEVENS. Largely.

Senator KITTREDGE. The yellow fever quarantine, etc.?

Mr. STEVENS. To a certain extent, yes, sir. I do not refer particularly to yellow fever; I am speaking generally.

The Chairman asked me, when I commenced this very discursive statement, how I found things on the Isthmus. I found a very bad state of feeling among the employees everywhere. They were scared out of their boots, afraid of yellow fever and afraid of everything.

They were not working with any heart, and I think the most of them would have been very glad if the whole thing had been abandoned. For some time, owing to the change in the chief engineer, they had practically felt that there had been no one there in authority, and that they were rather left alone; and this feeling had gone to a certain extent to the railroad employees. It took a long time, or sometime, to disabuse their minds of that notion. But as health conditions got better, and they found that there was somebody there to make decisions and to order them to do something, that soon disappeared, and for the last three months I do not think that in my thirty odd years of experience I have seen a more faithful, hard-working, loyal set of men than 80 or 90 per cent of the men are to-day.

Senator KNOX. Contented, also?

Mr. STEVENS. Yes, sir; I think they are.

Senator TALIAFERRO. Does that apply to the railroad work, or to both canal and railroad?

Mr. STEVENS. To both. Of course the health conditions and the yellow fever situation have improved in the last two or three months, so that they have gotten over feeling afraid of yellow fever.

Senator MORGAN. Do you mean all the laborers, as well as the others, when you speak of how the men feel?

Mr. STEVENS. Well, it is hard to say what a Jamaica or a Martinique negro thinks, you know. Sometimes I think that they do not think.

Senator DRYDEN. Is this congestion of the railroad in anyway aggravated by the neglect of the steamship companies?

Mr. STEVENS. If you will pardon me, Senator, just a moment, I would like to make this statement: We went to work on this congestion and we gradually dug this freight out. We found out from

an examination of a lot of these boxes and packages where they belonged, and we persuaded our southern connections, the two steamship lines running down to South America on the west coast, to take that freight and try and find out who it belonged to.

In the case of some of it we never could find out who it belonged to. We had to pay the claims as they came in, and we have reduced those down until there are very few packages the ownership of which we do not know. In the case of some of them the records are gone, and we are simply selling them by auction, and taking our chances on paying the claims. We are cleaning them up.

I found in the Colon dock alone I suppose twenty carloads of freight, some of which had been held in storage for the middlemen, the so-called wholesalers, in Colon. Some of it had been on our docks four and five and six months. In other words, everybody was using our dock as a warehouse. We found that instead of being common carriers we were in the warehouse business.

Now, of course, a railroad dock is not a warehouse. It is simply a platform to facilitate the exchange of freight between the railroad and the steamer, and vice versa, and the moment you commence to use it for a warehouse for your own freight or anyone else's you might as well throw up your hands. You can not do it; you simply can not do it.

Senator TALIAFERRO. That condition which you described as existing on the docks was, then, due to the mismanagement of the railroad?

Mr. STEVENS. I did not put it that way. I said that I did not think that the methods they were using, Senator, were modern and such as I would approve of. As soon as I could do so—it took me about thirty days to get the man I wanted—I made a change in the active superintendent of the railway. The gentleman who was there is a very fine man, a gentleman. He came to me and acknowledged that the job was too big for him, and that he ought to be relieved; and he was, promptly.

We went to work on that question. I devoted a great deal of my time to it, with the superintendent, and, as I say, we have succeeded in getting that situation cleaned up, and until within the last ten or twelve days it has been absolutely normal. In fact, some of the Panamanian merchants have come to me—and they are not people who joke very much—and have complained that they used to order their freight about three or four months ahead, and then forget all about it, until finally they found it was in Colon (if it came from New York), and then they would go over and get it themselves and see it shipped over. "Now," they say, "we gave an order here only three weeks ago, and the first thing we know the freight is here in Panama, and we are told to come and get it out of the way;" and they said, "We don't like that, because we don't want that freight yet." However, that has nothing to do with the subject here.

You spoke about the congestion arising from the quarantine. About the time that we had gotten nearly back to normal, I think in September, without a minute's warning the Guatamalan, the Costa Rican, and, I think, the southwestern Mexican ports put an absolute embargo and quarantine on any freight from Panama; and while we were receiving almost daily cargoes at the northern end of Colon, we were prevented from getting rid of a ton of freight

at the other end. You can imagine the situation that ensued. It was only a few days before our docks were full and our cars were full, and we could not move a wheel.

That situation lasted, as I remember, for twenty or thirty days. And finally—I do not know how it was done; Governor Magoon took it up in some way—we succeeded in getting the quarantine raised. When that was raised we got some ships in there and relieved the congestion at the south end, and everything resumed the normal course until since I have been here, within the last ten or twelve days. In that time we have had an accumulation of freight there, which is altogether northbound freight, which goes by the Pacific Mail. The only steamship connections we have for points north of Panama, as far as San Francisco, are by the Pacific Mail; and I get reports by cable every three or four days of the freight situation, and know every ton of freight and where it is destined for, while I am gone from there. I found that our freight was piling up, and upon asking for an explanation from the superintendent I got this cable—that on December 16 (I left there on the 12th) the Pacific Mail steamer left La Boca light, leaving about 800 tons of freight on the dock consigned to Pacific Mail. On the 16th she left 1,900 tons and went away light. On the 26th, which was another day of regular sailing, the agent says he never even saw the smoke of the ship, leaving them with their freight on their hands.

Senator HOPKINS. Why was that? Do you know?

Mr. STEVENS. Of course I took that up at once with Mr. Shonts and Mr. Schwearin, the general manager; and Secretary Taft has the full correspondence, or a copy of it. I have not it with me, but here are a couple of letters that I got this morning from the superintendent. I do not know where they have been so long; they are dated January 4. If any of you care to read them they will give you an explanation of the matter from his point of view.

The CHAIRMAN. Will you not please read them, Mr. Stevens?  
(Mr. Stevens thereupon read aloud the following letter:)

OFFICE OF GENERAL SUPERINTENDENT,  
PANAMA RAILROAD COMPANY,  
Colon, January 4, 1906.

Mr. J. F. STEVENS,

General Manager, Panama Railroad Company,  
Care of W. L. Pepperman, Washington, D. C.

DEAR SIR: Referring to your cablegram and my reply on the condition of cargo now on the Isthmus, I wired you fully and a little longer than I desired to to apprise you of our exact condition.

This subject has also been under investigation from the New York office, and I attach hereto a copy of my letter to Mr. Walker, that will give you full details of our present condition and the causes for the same, and I can only add that unless the Pacific Mail gives us more ships or change their manner of taking their cargo this accumulation will soon have us blocked again, and the condition is one that is entirely beyond my control.

I have gone over this situation carefully with their agent, have wired their San Francisco office, and you are now familiar with what has been said both to you and the New York office.

The true facts in the matter are that the sailing that was suppressed by them was done to divert the ships to the coffee trade, and the small ships that did come left over a large amount of cargo, and to-day they have 6,000 tons of cargo on the Isthmus after their ship the *City of Peking* sails. Therefore, if they offer us a large run of coffee at this time it reaches us with one-half of

our equipment tied up with their freight. We have everything at Colon very full. I have got one-half of the new wharf at La Boca inclosed and we began yesterday to store this wharf full of their cargo to release our cars, whereas the same was rushed through to enable us to handle the coffee in the proper way.

Yours, truly,

W. G. BIERD, *Superintendent.*

Mr. STEVENS. In other words, we get the freight over there and they do not take it. The situation is analogous to one like this: Here are two railways, end to end, you may say. Here is a place here where goods are sold and here is where they are to be delivered. There are different stations along this line. Now, the fellow here, who takes the freight first, carries it over his railroad. When he gets here he is supposed to turn these cars of freight over to the next man to take to these points.

This railroad man says, "No, I won't take them, because I am only running through freight trains. I don't stop at these stations—Smithtown and Jonestown and all those. I don't stop there, and I can't take them. I will take the through freight that goes," we will say, "to San Francisco at this end." Do you see the point. He does not run any trains for ten days or three weeks or a month; then he runs a little local freight. In the meantime you have got to "hold the sack." And that is what we are doing to-day.

Senator HOPKINS. That situation comes from the fact that it is more profitable to take the through freight than to take the local freight?

Mr. STEVENS. Yes, sir.

Senator GORMAN. Have you not got a perfect remedy for that by refusing to allow the ships to unload at Colon unless they take the freight from the other end—from Panama?

Mr. STEVENS. Well, Senator, I have put the matter up to our people and told them that one of two things must be done: The Pacific Mail either must furnish the ships to take that mail as it comes, or we must make arrangements with somebody else or put on ships of our own.

Senator TALIAFERRO. Or you can decline to handle the freight that is desirable?

Mr. STEVENS. Of course.

Senator TALIAFERRO. Until they handle the other freight in some suitable way?

Mr. STEVENS. Certainly.

Senator TALIAFERRO. Mr. Stevens, have you a large map of that Isthmus, of the canal line and of the railroad line, here in Washington?

Mr. STEVENS. Why, yes; they have them in the office. I do not know very much about what they have in the office of the Commission here, though, for I have no connection with it.

Senator MORGAN. Mr. Stevens, right in this connection, it seems to me proper to ask you a question that I feel a very great interest in, because I am the chairman of the Committee on Public Health of the Senate, and the first point that strikes me as being of supreme importance is the Isthmus. If we do not control quarantine in respect of the Isthmus we are gone up on the canal building, if any chance comes along in the way of cholera, bubonic plague, yellow fever, or any other of those diseases.

I wanted to ask you for about what length of time business was suspended on the Isthmus—I mean absolutely suspended—during the last epidemic season in regard to the case of bubonic plague that occurred down there. I understand there was only one case. Was there a suspension of business there from quarantine in consequence of that?

Mr. STEVENS. There was a suspension of through shipping business—anything through Panama or La Boca.

Senator MORGAN. Yes. Now, how long did that last?

Mr. STEVENS. My recollection is that it lasted about thirty or forty days.

Senator MORGAN. That was in regard to shipping?

Mr. STEVENS. Yes.

Senator MORGAN. Did that apply to the Government ships or vessels?

Mr. STEVENS. It applied to the Pacific Mail only to northern ports.

Senator MORGAN. Did it apply to transports?

Mr. STEVENS. No; we have no transports.

Senator MORGAN. Belonging to the canal company?

Mr. STEVENS. Oh, no; we have no transports that belong to the canal company.

Senator MORGAN. Or the railroad?

Mr. STEVENS. Not on the Pacific coast.

Senator MORGAN. Oh, no; not on the Pacific. I am talking about the Atlantic.

Mr. STEVENS. Oh, no; oh, no. The case of bubonic plague which was reported was at La Boca, on the Panama Railroad; and the Central American and Mexican ports were the ones that placed the embargo against any freight coming from La Boca.

Senator MORGAN. Could you give me—I do not suppose you could remember precisely—a memorandum of the places that quarantined against La Boca on account of that?

Mr. STEVENS. Yes, sir; I think they are matters of record here in the office. If they are not, I can get them from the Isthmus.

Senator MORGAN. Can you give me a similar statement or record in regard to the places that quarantined against Panama and Colon, or one or both of them, on account of yellow fever?

Mr. STEVENS. Yes, sir; I can get those.

Senator MORGAN. About what length of time did that yellow-fever quarantine operate?

Mr. STEVENS. Really, I can not tell you. The ports were a long ways off, and we were not doing any particular business with them, and we paid no particular attention to the matter—at least, I did not. Of course the quarantine health officers have all those records. It is a matter of record.

Senator MORGAN. What I want to know is what embarrassment has been or is likely to be inflicted upon the operations of the work on the canal in getting in laborers and in sending out laborers, and in getting in materials, etc., by the exposure that we are now under to have quarantine declared against the Isthmus by any powers in the world.

Mr. STEVENS. Oh, it can have an effect, undoubtedly.

Senator MORGAN. Well, it had a serious effect, I say, did it not?

Mr. STEVENS. It had a serious effect on the business of the Panama Railroad; that is all, though. It had no particular effect on the canal business.

Senator MORGAN. On the labor?

Mr. STEVENS. No, sir.

Senator MORGAN. The coming and going of laborers?

Mr. STEVENS. No, sir. You see, as far as yellow fever is concerned, the laborers are supposed to be immune. They are all tropical people, and are in no danger from it. They do not care anything about the yellow fever. That is one thing that makes the sanitary work of Governor Magoon and Colonel Gorgas so hard—because the natives down there, the Panamanians and the blacks, feel perfectly secure. But you whisper “bubonic plague,” and there is a different atmosphere in a minute.

Senator MORGAN. How about citizens of the United States who have gone down there?

Mr. STEVENS. Oh, I presume it has had more or less influence; but that fear died away. As far as the yellow-fever situation on the Isthmus now is concerned, we have had no case that I recall since the 15th of November; it is merely one of quarantine now. We make a strict quarantine, and keep it in from the outside. I do not look for any trouble with that. I know I went down there in July, in what was supposed to be the height of the yellow-fever season, and I had no more fear of it than of going out on the street here.

Senator MORGAN. I know that as to Habana there are some stories that are more or less true—I think they are more true than otherwise—to the effect that the Cubans have been hiding their yellow-fever people out in the center of the island, to keep us from going down there and cleaning them up.

Mr. STEVENS. There is probably a relaxation of quarantine—

Senator DRYDEN. Is that fact that you have so largely gotten rid of yellow fever due to getting rid of the germs in the cleaning up, or because of the effect of the colder weather?

Mr. STEVENS. The doctors tell me that most of the natives have it when they are children, in a very mild form. I do not know; it is a question on which scientific men differ. I would not attempt to pass judgment on it.

Senator TALIAFERRO. Is there as much insect life as you had there at first, Mr. Stevens—as many mosquitoes?

Mr. STEVENS. Well, I was there five months, Senator, and if I was bitten by a mosquito I do not know it. I was out at least three days out of the week in the jungles over at Culebra cut and Colon and running a little boat up and down those old canals and rivers and examining the situation, and I never was bitten by a mosquito to my knowledge.

Senator KNOX. Mr. Stevens, when did you go there?

Mr. STEVENS. I sailed the 20th of July, and arrived there the 26th.

Senator KNOX. And when did you leave?

Mr. STEVENS. I sailed the night of December 12th.

Senator KNOX. You were there continuously?

Mr. STEVENS. Yes, sir; and I am free to say I wish I was there now. You know I live there; that is my home. I have no connection at all with the Washington office.

Senator HOPKINS. I understood you in your statement earlier to say that one of the great problems was the mosquito question?

Mr. STEVENS. Yes, sir; killing the mosquitoes.

Senator HOPKINS. But that had been determined successfully before your arrival on the Isthmus?

Mr. STEVENS. Well, they had undoubtedly decreased them very largely; but, to put it broadly, I have seen more mosquitoes in a quarter section of North Dakota than I have ever seen in Panama in five months. There are no clouds of them like we see on our western prairies or away up north at Great Slave Lake or in Alaska. The mosquito there who does the most mischief—that is, the yellow-fever mosquito—is the little black house mosquito that breeds in damp, wet places. It breeds in your bathroom, if you are not careful; in your bath sponge, if you let it alone a day or two. It breeds in any place where fresh water is allowed to accumulate around your house.

The mosquito is a little bit of fellow. I think they call him the *Stegomyia*. He does not come buzzing across the room after you to give warning of his approach, but he will slip around and bite you here, probably [indicating]. That is the one that is supposed to convey the infection of yellow fever. All this fumigating that is going on is simply to kill off these mosquitoes, and they have largely decreased them in Panama, Colon, and different other places—undoubtedly so.

Senator SIMMONS. Was this the mosquito season, when you say you were not bitten at all by mosquitoes?

Mr. STEVENS. Oh, yes; the wet season.

Senator SIMMONS. You saw mosquitoes, you say?

Mr. STEVENS. Why, I saw a few. I go to ride very often about 5.30 or 6 in the morning, for half an hour or an hour's ride, for exercise before breakfast, and sometimes just before daylight, about daylight, when I am riding through a little clump of woods in one of these wagon roads—there are a number of wagon roads leading off to either side—you will sometimes see a few mosquitoes. But if you brush them off you soon go right through them and do not see them again.

I have been living in a little house down there on Ancon Hill, in the hospital section, and I have it thoroughly screened, the porches screened, and screens over the beds, and up to the time Mrs. Stevens and my little boy came down—of course the little chap is in and out and he will leave the door open occasionally—I had seen and had killed in that house two mosquitoes in four months, and I have killed four since then in five months.

Senator SIMMONS. Do they screen the railroad cars there?

Mr. STEVENS. Oh, no; oh, no; they do not even have any glass in them.

Senator TALIAFERRO. Your house is trebly screened?

Mr. STEVENS. Yes, sir.

Senator TALIAFERRO. The porches?

Mr. STEVENS. Yes, sir.

Senator TALIAFERRO. The windows?

Mr. STEVENS. Yes, sir.

Senator TALIAFERRO. And even the beds?

Mr. STEVENS. Yes, sir; and they are screening everything on the Isthmus. We have given orders to screen the laborers' quarters.

Senator MORGAN. I understood you to say, Mr. Stevens, that you live there?

Mr. STEVENS. Yes, sir.

Senator MORGAN. Is there any reason why any gentleman who might be the proprietor of this canal and railroad down there, the owner of the whole of it, should not take out his family and live there and oversee it?

Mr. STEVENS. Why, I live there.

Senator MORGAN. That answers the question.

Mr. STEVENS. And I am in a hurry to get back. I never was better in my life—but then I always have good health. I like it very much there. The climate is not hot from our point of view—that is, the northern point of view—but it is very humid. I have never seen the thermometer over 86.

Senator MORGAN. And from that down to 65?

Mr. STEVENS. Well, 65 is a little cool. I never have a thermometer around me, however, because the effect on the imagination is such that you are either always sweating to death or freezing to death if you have a thermometer. I do not want it, but occasionally I get a chance to see one; and the nights are always cool. I do not think there have been six nights in the time I have been there that I have not either had a very heavy sheet or a light blanket over me.

Senator KNOX. Is the precipitation chiefly at night—the rain?

Mr. STEVENS. No, sir.

Senator KNOX. Or is there any distinction between night and day in that respect?

Mr. STEVENS. No, sir. Well, the rain generally comes on from 2 to 3 in the afternoon. It will come right up out of a cloudless sky. The sun may be shining, as it is now, and it will rain perhaps five minutes and perhaps rain half an hour, sometimes very hard. But the sun will come right out again, and perhaps come out while it is raining. We have no wind to speak of; it scarcely ever blows there to any extent, excepting the regular trade winds, which are the salvation of the country and make it pleasant to live in.

Senator KNOX. You do not have any continuous rain?

Mr. STEVENS. Oh, no.

Senator KNOX. Days and days of rain?

Mr. STEVENS. Oh, no. They are showers, tropical showers, altogether.

Senator KNOX. Like the English climate?

Mr. STEVENS. Sometimes for two or three days we will have a succession of showers that will pretty nearly overlap each other.

Senator KNOX. But not enough to cause any holding back of the work?

Mr. STEVENS. No; with the exception that a tremendous amount of rain falls in a given time; and of course working in clay makes it nasty and wet.

Senator TALLAFERRO. Sometimes for two or three weeks you will have a rain every day?

Mr. STEVENS. Oh, yes, yes; you are pretty certain, in the rainy season, for several months, to have a little rain every day.

Senator KNOX. What is the rainy season?

Mr. STEVENS. It commences in May, May or June, and lasts through November; but it has not let up yet. I had a letter from my secre-



tary on the last boat, this week, or ten days ago, and he said he was having heavy rains there then.

The CHAIRMAN. We had a reasonably good rain the day we took dinner at your house.

Mr. STEVENS. Yes; I think that was one of the hardest rains we had all through the season.

The CHAIRMAN. Then the following day was a good rainy day, of course.

Senator HOPKINS. How many days will pass in the best season on the Zone without any rain?

Mr. STEVENS. There are supposed to be from three to four months.

Senator HOPKINS. With no rain whatever?

Mr. STEVENS. With practically no rain whatever. There will be possibly a light shower or two, but not to amount to anything. It gets very dusty, they tell me. Of course I have never been there in the dry season.

Senator MORGAN. Which is the healthy season in respect to yellow fever—the wet or the dry?

Mr. STEVENS. It is supposed that the dry season is the healthy season, and the same way with malaria, because mosquitoes do not breed as fast; there is less moisture for them to breed in.

Senator KITTREDGE. Please tell us about the eight-hour requirement and the civil service, Mr. Stevens, and their application to the work.

Mr. STEVENS. We are working under the United States eight-hour law, by decision of the Attorney-General.

Senator HOPKINS. You are working under that?

Mr. STEVENS. Yes, sir.

Senator DRYDEN. Does that include laborers?

Mr. STEVENS. Yes, sir; all laborers are hired by the hour, and the few mechanics we have. Yes, sir; we only work eight hours.

Senator KITTREDGE. What is your judgment about that provision of law?

Mr. STEVENS. I think I could do the work cheaper and do it quicker if all restriction was thrown off as far as the labor is concerned. I would pay less for it, and work them more hours.

Senator SIMMONS. What per cent of those unskilled laborers are Americans?

Mr. STEVENS. The unskilled laborers?

Senator SIMMONS. Yes.

Mr. STEVENS. About one ten-thousandth of 1 per cent.

Senator SIMMONS. Practically none?

Mr. STEVENS. I do not believe there are ten white laborers on the work—not ten in number altogether.

Senator SIMMONS. They are all foreign?

Mr. STEVENS. All foreign.

Senator DRYDEN. Do you depend upon the Jamaica negroes for your labor?

Mr. STEVENS. I have never myself hired any Jamaica negroes. There were a great many who came there previous to my time, and there are quite a number going there now of their own volition.

I got a message yesterday from my assistant engineer, who is working in my place down there now, saying that since January 1 over 500 of them had come back of their own account from Kingston, and they reported that others in large numbers would follow them. We have

brought our people, since I have been there, from Martinique and Barbados, and from Cartagena in Colombia.

Senator DRYDEN. That fact would indicate, then, to your mind, that on the whole they are satisfied? It would appear so from their return.

Mr. STEVENS. As a body, I know they are. They are earning more money than they ever earned in their lives.

Senator SIMMONS. Can you get, without difficulty, as many laborers as you want?

Mr. STEVENS. I made a trial here a short time ago at Jamaica and I met with defeat; I did not do it right. Secretary Taft stopped in Kingston in November, 1904, and had some negotiations with the governor, which resulted in nothing, about getting laborers, I believe; and when I sent my agent there and gave him credentials about six weeks ago, Sir Alexander Swettenham, the governor, took the ground (which was technically correct) that he had negotiations with Secretary Taft and therefore he could not open any negotiations with me until the other negotiations had been declared diplomatically closed. So I could not do anything.

The fact of the matter is that the planters, who are the ruling class in Jamaica, and through them the Government, are opposed to the exportation of Jamaicans to the Zone or anywhere else. They want to keep them to get their labor cheap. The merchants and bankers and people who are interested more directly in smaller lines of business want them to go because they earn more money and it comes back there. That is the situation exactly in Jamaica, say what they like. But we have gotten all that we want; and I think that the Martinique and Barbados blacks are superior to the Jamaicans, although I am not satisfied at all with either.

Senator DRYDEN. I was going to ask you whether they perform a reasonable amount of work?

Mr. STEVENS. They do not.

Senator DRYDEN. They do not?

Mr. STEVENS. And, regardless of anybody else's opinion—I am rather a self-opinionated man—the greatest problem in building a canal of any type on the Isthmus, or building anywhere in the Isthmus, is the one of labor. The engineering and constructional difficulties melt into insignificance compared with labor. That is the question to-day.

Senator DRYDEN. Have you any opinion which you would care to express to the committee as to the source from which it would be most desirable to get our labor?

Mr. STEVENS. Why, I have no hesitancy in expressing any opinions I may have. I do not know. I recommended some time ago to the Commission that we take measures to bring in Chinese, Canton Chinese. I have worked Chinese, and I have worked Japanese. I presume I was practically the first man in the United States that ever worked Japanese labor. Mr. Hill brought them in on the Great Northern Railway. I worked Chinese as long ago as 1884, when we were building the main line of the Canadian Pacific road.

I was in the Rockies there for them for four years on the heavy construction; and I regard the Chinese laborer as a first-class laborer. He will not do as much work as our northern laborer will, of course; we do not pay him as much; but from my experience, if he can stand

the climate down there—and he certainly should, in view of the fact that Canton has almost identically the climate of Panama—and is properly taken care of, I think that one Chinaman is worth two of the laborers we have now.

Senator TALIAFERRO. Mr. Stevens, how can you get that labor in there under the law?

Mr. STEVENS. I do not know, Senator. That is what I am trying to find out. I was a little discouraged over the fact of this alleged friction between the Chinese Government and our own Government in regard to certain things that have been happening lately.

Senator TALIAFERRO. How do you get these blacks from the islands, under the law?

Mr. STEVENS. Under the law?

Senator TALIAFERRO. Yes.

Mr. STEVENS. Why, we simply hire them, and they come.

Senator KNOX. You agree to hire them when they come?

Mr. STEVENS. There has never been any question about that. We do not make any contracts with them as bodies.

Senator SIMMONS. Do not our contract laws apply to the Isthmus as well as our exclusion laws?

Mr. STEVENS. I have never been notified if they do.

Senator KNOX. Well, the eight-hour law goes there.

Mr. STEVENS. That has been ruled.

Senator DRYDEN. I suppose you let them come first, and you hire them afterwards?

Mr. STEVENS. We bring them over, and we pay their fares. There is no concealment about that.

Senator MORGAN. Mr. Stevens, I gathered from your statement, the general current of it, that it is your opinion that the proper way to proceed with this work is first to determine the plan of the canal?

Mr. STEVENS. Most assuredly.

Senator MORGAN. That is the first work that Congress ought to engage in, and the engineers and the Commission, and everybody concerned?

Mr. STEVENS. It ought to be decided.

Senator MORGAN. Yes; both for the sake of economy and certainty of work on the engineering projects, and all that. Will you be back here before that question is settled?

Mr. STEVENS. I hardly expect to. I do not want to come back at all until next summer if I can avoid it. It is pretty nearly a man's job down there, and I would like to stay there.

Senator MORGAN. I would suggest to the committee that if Mr. Stevens is not to come back, inasmuch as he has a thoroughly practical knowledge of the situation on the Isthmus, some time ought to be devoted to his examination upon the report of the consulting engineers, who have reported (we have all seen the paper) in favor of a sea-level canal. We have all examined that paper. I want to ascertain at the proper time what difficulties Mr. Stevens finds in the report, both as to the possibility and feasibility of a sea-level canal, and as to the cost of it.

Senator KITTREDGE. When had you planned to leave, Mr. Stevens?

Mr. STEVENS. I have got three or four days' work here, work that I have not done—and, in fact, the work the Senator speaks of, exam-

ining carefully these reports. In fact, we have got only one-half the report in form, and I understand some changes have been made in that; but I want to study those reports and give my views to the Commission.

Senator KITTREDGE. Can you give your views to the committee as well before you leave?

Mr. STEVENS. I could not do it now, because I have not considered the matter.

Senator KITTREDGE. I mean, before you leave.

Senator MORGAN. I supposed Mr. Stevens might not be prepared.

Mr. STEVENS. I am not prepared now, certainly.

Senator MORGAN. I am particularly anxious that this committee should hear him upon that question.

Senator KITTREDGE. So am I.

Senator GORMAN. We all are.

Senator HOPKINS. Have you given any thought as to whether it would be advisable to have this canal dug by contract?

Mr. STEVENS. I have given very serious thought to it; yes, sir.

Senator HOPKINS. Are you prepared to enlighten the committee at the present time as to your views on that matter?

Mr. STEVENS. I am thoroughly in favor of contract work—thoroughly in favor of it.

Senator HOPKINS. You believe it would be to the best interests of the Government to let the construction of it, after the question has been determined as to whether it shall be a lock or a sea-level canal, under contracts?

Mr. STEVENS. I should certainly ask for bids on intelligent specifications; and when I got my bids I could tell what I would do. But I believe in doing the work by contract. There is no doubt about that.

Senator DRYDEN. But there would be no difficulty at this time in preparing specifications upon which to base bids, so that you would have a clear understanding and practically accurate knowledge of the cost of that canal when completed, or so far as the specifications went, when the bids were in, would there?

Mr. STEVENS. Assuming that the successful bidder carried out his contract.

Senator DRYDEN. Precisely—of course that would have to be assumed.

Mr. STEVENS. And there would be difficulty in making the specifications. It is a question that requires very good judgment and a good deal of discussion on the numerous points involved; but they can be written, I think.

Senator DRYDEN. What I meant to bring out—perhaps my question did not make it clear—was whether, at the beginning, the specifications can be drawn so that as an engineer you would have every confidence that when the bids were in no subsequent contracts would have to be made to complete the parts of the work contracted for?

Mr. STEVENS. No; approximately none. There should not be. I should think you could make it so broad as to cover that.

Senator SIMMONS. If it were let out by contract, would not the Government have to manage the transportation facilities over the railroad?

Mr. STEVENS. Over the railroad?

Senator SIMMONS. Yes.

Mr. STEVENS. No; my plan would be to turn all this equipment over to the contractor, and he would run his trains over the Panama Railroad—of course, under the Panama Railroad train dispatchers, which is done in the case of leasing trackage rights anywhere in the world, you know—at a nominal sum, which we would fix, per train mile. Supposing it was 25 cents, and he would run 25 miles; he would pay \$6.25 for the privilege of running that train over those 25 miles.

Senator SIMMONS. But the Government would have to construct the railroad?

Mr. STEVENS. The Government would have to construct the railroad.

Senator SIMMONS. And bear the expense of its maintenance?

Mr. STEVENS. Yes, sir.

Senator TALIAFERRO. The Panama Railroad?

Mr. STEVENS. Yes.

Senator TALIAFERRO. Not the canal railroad?

Mr. STEVENS. No, sir.

Senator KNOX. The Panama Railroad Company would have to construct the railroad. That is operated as a separate identity.

Senator SIMMONS. I was referring to the spur tracks. Would you not have to construct those?

Mr. STEVENS. No, sir; I should turn them over to the contractor, just as I should expect them to be turned over to me if I were the contractor and doing this work for the Government.

Senator HOPKINS. The contractor would do there precisely as he would do if he was building the main line of any great railroad?

Mr. STEVENS. Exactly.

Senator MORGAN. Mr. Stevens, I would like to suggest to you, inasmuch as you have made your pronouncement (I do not say that I disagree with you at all) about doing that work by letting it out to bidders, to contractors—

Mr. STEVENS. You say you disagree with me?

Senator MORGAN. No; I say, inasmuch as you have stated that you have a preference for that method of doing work by contract, I desire to suggest to you that before we meet again I would like you to please consider the question as to what changes in the government of the Zone might be made necessary, if we had a lot of contractors working in there, from the present democratic system of constitutional law that we administer there, from the supreme court down to a magistrate, etc. I judge that our first duty would be to protect the contractor and his laborers against outside intervenors and people who might be interfering with their morals, etc., and their business.

Mr. STEVENS. Yes, sir.

Senator MORGAN. And we would have to protect squads of men working under different contractors against each other.

Mr. STEVENS. You have struck the root of the greatest difficulty.

Senator MORGAN. And we would have to protect the contractors against their employees. Now, it occurs to me that in conducting work in that way, the strongest arm of government that the Government can wield at all in the control of the situation there ought to be employed.

My preference would be, and my preference has always been, for treating this Canal Zone under those circumstances as a Government reservation, with the military power of government over all—not to be exercised in a strict military regimen, but with power to control and with a measure and means of controlling every situation that arises, not by going into a court and suing out a writ of habeas corpus or trying a case before a judge, but by ordering the things to be done.

Mr. STEVENS. Of course I have never gone into those questions.

Senator MORGAN. I expected that you had not, and I wanted to ask you to take them into your consideration in coming to a final conclusion as to whether this system you have now is the best one to pursue.

Mr. STEVENS. But there are two things that the United States Government must retain control of, no matter how the work is done; that is the policing and the sanitation.

Senator HOPKINS. The letting by contract would not interfere with the sanitation of the government of the Zone at all, would it?

Mr. STEVENS. I think not; I think that can be worked out. The point that Senator Morgan brings up in regard to the conflict between laborers belonging to different contractors is another proposition, however, and a very difficult one to deal with.

In all large contracts in this country that I have ever been connected with, I have always had inserted in the contract a clause giving the chief engineer, or the railway company, or the corporation, a right to fix the hours and the price of labor; and the general control that the chief engineer retains of a railway contract in this country gives him power enough so that he can, nine times out of ten, adjust these labor troubles.

Senator HOPKINS. As between two companies, with the chief engineer to have supervision of the entire system, you could have in your contract, could you not, a penalty to be affixed and administered by the chief engineer if one contractor interfered with the other?

Mr. STEVENS. Oh, I presume so. Of course it is possible to draw a contract so one sided and arbitrary that it is useless. I have made them with that stipulation. You can make the chief engineer the sole and supreme arbiter in the contract, and still you can go into court in the United States and break it, as I have found several times.

Senator KITTREDGE. Mr. Stevens, returning to the eight-hour feature of this matter, is it possible for American labor to do the manual work on the Isthmus?

Mr. STEVENS. I think it would be possible from a hygienic and climatic standpoint, but not from a practical standpoint, because there is not the American labor to go there, either colored or white?

Senator KITTREDGE. Would the elimination of the eight-hour feature in any manner interfere with the American laborer?

Mr. STEVENS. I do not think it would in the least.

Senator KNOX. To what extent do you think that ruling that the eight-hour law applies to the Isthmus interferes with the work?

Mr. STEVENS. As far as the common laborer is concerned, as I think I said before, we are paying higher than that class of labor has ever been paid anywhere. We are paying 20 cents for the lowest classes—20 cents in silver, 10 cents in gold; 80 cents for eight hours, in gold, or

\$1.60 in silver, with this reservation: When the men are hired they are told that is the unit price of labor, the basing price. If, after they have worked awhile and demonstrated their ability by their hard work and attention to their duties they are capable of doing anything better, they are paid 26 cents; and that is the highest that common labor is paid or promised.

If I had the privilege of working those people ten hours a day, I should not pay them 20 cents an hour, because it is more than they are being paid anywhere else, and the islands negro is a peculiar being. The majority of them, you know, can not see very far ahead. As a matter of fact, assuming that it costs those people 30 cents a day for actual food expenses, and we paid them \$1.80 a day for work, I apprehend that one-half of them would work Monday, and they would not work again until next Monday, because that would carry them through.

Senator MORGAN. The South is full of object lessons of exactly that character with our own negroes.

Mr. STEVENS. And it is accentuated the farther south you go, in the islands.

Senator MORGAN. They will work two days in the week and live the balance of it in idleness.

Mr. STEVENS. They have absolutely nothing of what we call ambition.

Senator KNOX. My question had not so much to do, Mr. Stevens, with the cost of the canal, but with the length of time that it would take to build it, and to what extent the work is interfered with by the ruling that the eight-hour law applies. Are those men capable of working much longer than eight hours?

Mr. STEVENS. Oh, yes.

Senator TALIAFERRO. And they are accustomed to it?

Mr. STEVENS. They are accustomed to it at the plantations, you know; they work from sun to sun.

Senator KNOX. Then it is interfered with to a serious extent?

Mr. STEVENS. Theoretically (I will not say it is practically true) we are losing 20 per cent.

Senator KNOX. That is what I want to get at.

Mr. STEVENS. I will not say it is practically true with that class of labor, but I can figure it out that way—it is ten hours against eight.

Senator TALIAFERRO. And I suppose one of your reasons for favoring the contract system there is that the contractors would not be bound down as you are?

Mr. STEVENS. I understand that they are bound down. They are bound in the United States.

Senator HOPKINS. Yes; Government contractors are.

Mr. STEVENS. If the ruling of the Attorney-General will apply to our laborers, I do not see why it should not apply to the contractors.

Senator SIMMONS. Have you ever worked American negro labor?

Mr. STEVENS. Why, yes; more or less.

Senator SIMMONS. What is the efficiency of the negro that you have down there as a laborer compared with the American negro laborer?

Mr. STEVENS. With the average American negro?

Senator SIMMONS. Yes.

Mr. STEVENS. I can only speak of American negro labor on railroad work. I should say that the average American negro laborer I have seen and had around me on railways is worth at least two of the island negroes. Some of the very best men I ever saw in my life were Southern negroes, on the railway, and some of the poorest.

The CHAIRMAN. Mr. Stevens, do you not think that the American negro, if you took him down on the Isthmus, would in a short time be about as worthless as the Jamaican darkey?

Mr. STEVENS. Well, I could not say that. That is a pure matter of theory.

Senator MORGAN. I do not think that the negro ever gets tired of hot weather. I never saw one that did.

Senator KITTREDGE. How about the civil-service restrictions?

Mr. STEVENS. Well, I have had more or less controversy, as you know, with the civil-service people. I suppose my experience there has been rather bitter with the class of men that have gone down. I do not believe that for outside men, for men like train men, steam-shovel men, foremen, track foremen, and people of that class we should be held to the civil-service examination. As far as clerks, clerical men, inside men, are concerned, I am thoroughly committed to it and believe in it.

Senator KITTREDGE. You think that you should have a free hand in the management and control of outside men?

Mr. STEVENS. I think so.

Senator KITTREDGE. Just the same as in the management of a railroad?

Mr. STEVENS. Yes; I think so.

Senator GORMAN. Well, has not that order been modified, so that you have now?

Mr. STEVENS. I understand that it has.

Senator KITTREDGE. To what extent?

Mr. STEVENS. To the extent that I have said—that all outside men are outside of the civil service.

Senator MORGAN. Has there been any trouble in the Zone among the laborers, etc., arising from drunkenness?

Mr. STEVENS. No; not very much. I will say this for the islands negro: He is the most harmless and law-abiding person for the numbers that we have collected together there that I ever saw in my life.

Senator MORGAN. Are you aware that the natives, the Panamans or Panamaniacs, or whatever you please to call them, are moonshiners, making rum out of sugar cane?

Mr. STEVENS. Oh, yes.

Senator MORGAN. That is a common practice, is it not?

Mr. STEVENS. Yes, sir.

Senator MORGAN. That is what I thought. How about aguardiente?

Mr. STEVENS. Oh, no; aguardiente is made in Mexico. No; they make plain rum. The cane grows wild there, and you can go out and find hundreds of acres of it.

Senator MORGAN. Yes; and they take it and take the juice out of it and distill it?

Mr. STEVENS. Yes, sir.

Senator MORGAN. That goes on in the Zone, too?



Mr. STEVENS. Yes; I think so.

Senator MORGAN. I got my information from a man who is at work down there and came back on a little furlough. He likes the country.

Senator SIMMONS. Do they make that for themselves or for shipment?

Mr. STEVENS. I do not know whether any of it is shipped or not. It is sold there.

Senator MORGAN. Looking to the possibility of those native people making a very heavy haul in the way of manufacturing this rum and selling it to the Zone people, or making it in the Zone, would it not be very well to make restrictions there of a severe character against the introduction of that drink? This man that I speak of says that they will sell it for 5 cents a pint, and that two pints of it will kill any man in the world if he drinks it inside of an hour.

Mr. STEVENS. Well, I do not drink it myself. Of course I have tasted it; and I do not disguise at all the fact that I like rum. I like it in this way: Occasionally, I suppose a dozen times, down on the Isthmus we had made what we called a limeade. We raise the most beautiful limes in the world there, and they are very healthful; and we put about a tablespoonful of rum in it simply to flavor it, and it makes a very fine drink.

By the way, speaking about "two drinks killing a man," the people down there, who ought to know, tell me that the rum that is made there in this way is absolutely pure—100 per cent pure; that there is no purer rum in the world, and the only trouble is that it is so new and fiery that they drink a lot of it. And there is one trouble, speaking about the characteristics of the negro there: If he has 10 cents to buy a meal, and he starts to buy it, and meets a woman, a vendor, a Chinaman, or anybody with rum—the peddlers go around with these things on their heads, you know, selling cakes and bottles of sweetened water and rum; they inherited that from the French, by the way—this man is just as liable as not to take this 10 cents or 5 cents or whatever he has and spend it for rum, and go without his dinner. They like it. But I say I never saw very many of them drunk. You scarcely ever see a drunken negro.

Senator TALIAFERRO. What is the trouble about lewd women on the Zone?

Mr. STEVENS. I do not know, Senator. There are none there so far as I know. There are lewd women there, undoubtedly; but they were not brought in by the Commission.

Senator TALIAFERRO. Do they get in on our ships?

Mr. STEVENS. Well, we are running a line of boats there, you know, coming in at Colon.

Senator HOPKINS. In proportion to the population there, is that condition any worse than you will find it in any section of the country?

Mr. STEVENS. No; it is not nearly as bad as in our old-settled cities here—nothing of the kind; oh, no. There are such houses in Panama, I understand, several of them; but without taking too much of your time I will illustrate:

I know some very nice people that live in Panama. There are no better people in the world. They are agreeable people, cultured people. In speaking of the difference between the American administration and the French administration they say: "Now, you see that

plaza"—you were there Mr. Chairman; I mean the plaza in front of the Central Hotel.

The CHAIRMAN. Yes.

Mr. STEVENS. They tell me that every night of the year, during the old French occupation, that was the scene of a howling orgy; they had no police force to deal with the thing then, and the scene that you could look out from the windows and see right around the plaza was something awful. The most debasing debauches were going on there all the time, participated in by men and women, and they say that now there are a good many canteeners, which are saloons where they sell liquor in the city of Panama; then every store was a canteen. Now after 8 o'clock it is like a tomb in Panama; you can testify to that yourself.

The CHAIRMAN. Yes.

Mr. STEVENS. It is so quiet. Nothing of the kind is going on. Undoubtedly, and, in fact, I know there are several of those places there, as there naturally would be. But the city of Panama is a very quiet, lawful, law-abiding place.

Senator HOPKINS. And a moral city?

Mr. STEVENS. I regard it so; yes.

Senator MORGAN. How is Colon?

Mr. STEVENS. I do not live there; I do not sleep there probably oftener than one night a week. I have never seen any trouble in Colon, except where some laborers have drifted in there, and then sometimes there is trouble. I never saw a fight in either town.

The CHAIRMAN. During the eight days I was there I did not see a drunken man from Colon to Panama, and I was out almost every day.

Mr. STEVENS. No; I am free to say that the worst class we have had down there, to our shame, has been some of our men that have gone down from here. That is another thing that I have been criticized very harshly for. They do not stop very long; I send them home and get rid of them. It is a very peculiar position there; you can not understand it unless you are on the ground.

The CHAIRMAN. The young men there in charge of squads of different kinds along the line seemed to me like very intelligent, bright young fellows.

Mr. STEVENS. They are.

The CHAIRMAN. They appeared to me so.

Mr. STEVENS. They are as fine a body of young fellows as I ever saw in my life. Now there is a club called the University Club in Panama. It has been started recently. They have very elegant club rooms. There are over 300 members of that club; and when you understand that they must be college graduates, either of a college or a university, in good standing, to secure their admittance, you can see what that means. I can not be admitted to the club, because I am not a college graduate—although I believe they made me an honorary vice-president to get me in. But there is the standard they have set up, and there are 300 in that club.

Senator TALIAFERRO. Only from the United States?

Mr. STEVENS. They are mostly our men. Some of the Panamanians belong to it. There are quite a number of young men there who are graduates of our northern colleges and universities.

Senator KNOX. What is the population of Panama?

Mr. STEVENS. As near as we can ascertain, about 28,000; about 8,000 in Colon.

Senator DRYDEN. Is it not true that the houses in Colon where the laborers live are built in the swamps?

Mr. STEVENS. Yes, sir.

Senator DRYDEN. And all surrounded by water?

Mr. STEVENS. Yes, sir; it is true to a large extent.

Senator DRYDEN. Not drained?

Mr. STEVENS. Not drained.

Senator DRYDEN. Is that necessary? Is there no high ground there upon which these houses could have been located?

Mr. STEVENS. No, sir; no, sir. Manzanilla Island is only about 1½ to 2 feet above the level of the sea. It is surrounded on all sides by salt water, and about one-half of the island is covered by a fresh-water marsh from 1 inch to a foot and a half deep, possibly.

And then, these houses that you speak of are not creations of the Commission. They have been there for I do not know how long; possibly some of them for forty or fifty years. But at Colon—very few of our employees live there; taking Colon and Cristobal together, for they are practically one, I do not suppose there are over two or three hundred out of the twelve or fifteen thousand employees that live in Colon.

The CHAIRMAN. They all live at Cristobal, do they not?

Mr. STEVENS. Our white employees all live at Cristobal. Cristobal is an artificial peninsula which was built by the French out into the bay, and it is a most beautiful place of residence.

Senator DRYDEN. Does the same condition as to swamps exist there?

Mr. STEVENS. No, sir.

Senator DRYDEN. That is healthier?

Mr. STEVENS. Yes, sir.

Senator SIMMONS. Have we built any houses or hotels in these swamps?

Mr. STEVENS. No, sir. On the contrary, I have made plans and definitely arranged now to destroy all of those that are there. We have plans adopted and approved for taking care of Colon's sanitation, and the work is going on at the present time.

Senator DRYDEN. For destroying all those houses that are now in the swamps?

Mr. STEVENS. Yes, sir; a lot of them we will destroy. Then in that low part we will take the people out of them, raise them up, fill underneath, and rebuild the houses.

Senator GORMAN. Mr. Stevens, while this is a matter to which I do not attach the importance that a great many others do, I think it is due to you, as the matter has been brought up, to call your attention to a communication from the President of the United States and a letter of the Secretary of War, dated on the 10th and 11th of January, in which the emphatic statement was made by the Secretary of War that the women who had been brought to the Isthmus from Jamaica came voluntarily, and that their transportation was not paid for by the Canal Commission.

Afterwards the Secretary of War, in a note, makes the statement that after conferring with an agent that you have in Jamaica. Mr. Settoon, it appears that that agent did engage the women, and paid their fares to the Canal Zone as the wives of laborers, and that this

was done after consultation between the agent and yourself, and without the knowledge of the Commission. I think you ought to have an opportunity to state all the facts about that.

Mr. STEVENS. The facts are these: None of those women came from Jamaica, although that is not an essential point; they came from Martinique. We bring laborers from Martinique and from Barbados and other places, and since my time down there we have brought none from Jamaica. A great many of these laborers that came from Martinique claimed the right to bring their families, their wives, along, and we had no quarters for anybody excepting bachelors. The French did not provide them.

All of these laborers' quarters were simply houses of one room, and (as the express policy of the Commission was for the blacks and whites alike to have their families there, to get their minds on their work so that they would stay on the work, we are following that policy with whites as well as blacks), we immediately started rebuilding a lot of these houses to make married quarters. The agents reported that we could get a better class of blacks if they could bring their wives.

I said: "Whenever our quarters are so that we can take care of them as they should be, decently, where each family can be segregated from the other, I am perfectly willing that they should come under the same conditions that the laborers came, namely, that we pay their fare from Fort de France or Martinique," which is, I think, about \$7.

Then, when the Commission went into the hotel business, we found a terrible dearth of servants; we could not get anybody to take care of rooms; and the suggestion was made that we could get some of these women for servants.

They make very excellent ones; and a few of the white employees, the higher grade people, who keep servants, wanted some. I said: "All right; you can bring these people along provided you know it is all straight;" and they were brought when the quarters were ready. And Mr. Settoon tells me that he selected them carefully, personally, the 280-odd, I think, that he brought over; he knew the family relations of every one of the less than 300 women that were sent, and every one of them had a father or a brother or a husband on the Isthmus that had preceded her. Now, there is the situation exactly.

Senator GORMAN. It was clearly within your province to make that arrangement, without consulting the Commission.

Mr. STEVENS. I may have exceeded my orders from the Commission, though I never had any orders. My orders were to stock the work with laborers, and I tried to do it.

Senator GORMAN. What is the result of the experiment, so far as it has gone? Has it been beneficial, or otherwise?

Mr. STEVENS. Why, it has been beneficial. We have gotten a better class of laborers, and they have settled down, and expect to stay there and stay with the work.

Senator SIMMONS. You said the Government paid their fare, \$7?

Mr. STEVENS. Yes, sir.

Senator SIMMONS. If that was a woman, how would that be returned to the Government?

Mr. STEVENS. It is not returned. We are not deducting from laborers that come from Martinique and Barbados the cost of bringing them over.

Senator SIMMONS. As to the labor that comes to engage in the work and is employed by the Government, you would not deduct it, I can see that; but suppose it comes there, not to be employed by the Government, as some of these women were, would you still pay their fares?

Mr. STEVENS. Oh, no; oh, no. If the people come and want to work, we put them to work.

Senator SIMMONS. But these women who came over, and whose fare you paid, came over to serve the Government?

Mr. STEVENS. Why, certainly; and they are serving the Government. I think there is a report there in some of these papers from our chief of police, whom we had investigate every individual, and who knew just what every one of them was doing.

Now, I do not want to be misunderstood (I want to make this statement right here) as saying that, according to our church forms, every one of these women was what we would term a legal wife. But I do mean to say what I believe, that in the country where you are the custom is the law, and if a man and woman live together thirty or forty years, even if the benediction has not been pronounced over them, they are man and wife. That is the condition that obtains all over the islands. I do not suppose that over 50 per cent of the people who live with each other their lives long, and never consort with any other, have had the benediction pronounced over them; but they are man and wife nevertheless. They are so recognized. In other words, while, as I say, we did not know that a benediction had been pronounced in every case over these people, we did know before leaving the island that all of these so-called wives had been living with these men for many years.

Senator KNOX. They were common-law wives?

Mr. STEVENS. They were common-law wives.

Senator GORMAN. The result has been to improve the efficiency of the labor?

Mr. STEVENS. There is no doubt of that. The very best class of our laborers are the ones who bring their families.

Senator GORMAN. I merely asked about it because the question has been raised.

Mr. STEVENS. There has been so much talk and misrepresentation about it that I am very glad you did.

Senator GORMAN. Yes. Now, Mr. Stevens, I would like to ask you one or two questions, going back to your original statement, about the equipment of the Panama Railroad—I mean the main line.

Mr. STEVENS. Yes, sir.

Senator GORMAN. Outside of the switches and spurs, what was the estimate made by your predecessor on the whole of the remodelling and laying down of additional track, double tracking that road with the equipment?

Mr. STEVENS. I do not recall it, Senator.

Senator GORMAN. You do not?

Mr. STEVENS. No, sir.

Senator GORMAN. Can you furnish it to the committee from any data you have?

Mr. STEVENS. You mean for changing the gauge and changing the equipment?

Senator GORMAN. I do.

Mr. STEVENS. I can find it in the records.

Senator GORMAN. And will you let us have it?

Mr. STEVENS. Yes, sir.

Senator GORMAN. Do you know the amount that we expended or contracted for, for the equipment of that road, prior to your taking charge?

Mr. STEVENS. There were 24 engines, which, I suppose, cost on an average of about \$13,000 per engine—perhaps a little more. There was 500 box cars—well, I can not give you the amount.

Senator GORMAN. Can you furnish a statement of the whole amount involved in the way of cost, either in purchases or contracts, on that account, for equipment?

Mr. STEVENS. Yes, sir.

Senator GORMAN. And then the amount that you have contracted for since you have taken the Isthmus in charge?

Mr. STEVENS. Yes, sir; I will do that. I will take those from the orders on the books direct. But while we are on that point, I want to go on record as saying that I do not favor changing the gauge of the Panama Railroad. It is a 5-foot gauge, in contradistinction to our 4 foot 8½ inch gauge here.

Senator GORMAN. You have not changed it?

Mr. STEVENS. No, sir.

Senator TALIAFERRO. Could you not get your rolling stock more economically if you had the standard gauge?

Mr. STEVENS. No, sir. It makes practically no difference at all.

Senator TALIAFERRO. Could you not buy cheaper?

Mr. STEVENS. I presume you could buy your ties a trifle cheaper, because they are 6 inches or a foot shorter. There may be a little difference owing to the extra width; but, on the contrary, a 5-foot gauge road is a cheaper road to operate.

Senator TALIAFERRO. Not cheaper to maintain, however?

Mr. STEVENS. Well, it would be a very fine point to find any difference, I think, in the maintenance down there.

Senator HOPKINS. Explain what you mean by "cheaper to operate."

Mr. STEVENS. I mean this: That practically a firebox can not be built on scientific lines to burn coal as economically under forced draft with a 4 foot 8½ inch gauge as it can with a 5-foot gauge; and if the big railroad men of the United States to-day will tell what they really think—and there is no reason why they should not—they will say that they are all sorry that the gauge is not 6 feet. It is a mathematical impossibility to build a perfect firebox for a less gauge.

Senator HOPKINS. They are not building railroads with a 6-foot gauge in this country, though, are they?

Mr. STEVENS. No; they can not do that, on account of breaking bulk, you know. They must have a standard gauge. They settled down on the 4 foot 8½ inch gauge years ago; they are committed to it now, and there is no getting away from it; but with the Panama Railroad it is different. We have no connections, and the chances are very remote that we ever will, that will amount to anything. If there is a railroad up and down the Isthmus, the Panama Railroad, after the canal is built, will not amount to much.

Senator KNOX. What was the gauge of that broad-gauge line that we had once in this country—the Atlantic and Great Western, was it not?

Mr. STEVENS. I think that was 6 feet.

Senator HOPKINS. The consensus of opinion in this country, however, is that here 4 feet 8 is the proper gauge?

Mr. STEVENS. It is the proper gauge, because it is utterly impossible to get so many owners to put in the money to change the entire systems of the country; and you must have a gauge that is interchangeable with your equipment, otherwise you have to break bulk every time you get to the end of a fellow's railroad; and it costs as much to break bulk as it does to haul freight two or three hundred miles on the road. But it is a fact, a mechanical fact, that our gauge is too narrow.

Senator GORMAN. Mr. Stevens, the whole estimated amount of the improvement of the wharves and of the new track on the main line and the equipment will be covered by the question I asked you. How much of that would be properly chargeable to the construction of the canal?

Mr. STEVENS. That is according to the point of view from which you look at it, it seems to me. As I said before, the Panama Railroad, with its track and its equipment properly kept up—which means that from time to time new rolling stock must be purchased to take the place of that that is destroyed, new rails must be bought, docks must be maintained and occasionally rebuilt, especially if they are wood—the Panama Railroad, outside of the work it has to do in the building of the canal; hauling material, could take care of the commercial business, especially in view of the fact that it is liable to have a serious competitor in the immediate future—the Tehuantepec Railway.

From that point of view, considering that the ownership of both the canal and the railway are in one party—the United States—it is fair enough to say that the entire cost of anything exceeding the cost of the original Panama Railroad should be charged to the canal. Take the case of the double tracking. The cost of building this double track is assumed by the canal; the cost of maintaining both tracks, which are used indiscriminately for the traffic over both the canal and commercial, is to be borne by the railroad company.

Senator GORMAN. And they are charging so much for the Government service for hauling the dirt?

Mr. STEVENS. Yes, sir.

Senator GORMAN. Has that adjustment been made, fixing a rate per ton per mile?

Mr. STEVENS. Well, they have a rate. I do not remember now how much it is; but I do not think it has finally been decided.

Senator GORMAN. It has not been?

Mr. STEVENS. No, sir. I do not know just what they are charging now.

As far as passenger service is concerned, we have a stated sum a month that the Commission pays to the railway for handling its employees. It is not enough to pay for it; I have asked for more; I do not know whether they will give it to me or not. It is \$3,000 a month; and taking one-half of the regular passenger rates, it cost

us something over \$4,000 in November. But that was merely adopted as a blanket sum until we could determine what was a fair compensation.

Senator GORMAN. I understand you to say that all the equipment which you have purchased and contracted for is of American manufacture?

Mr. STEVENS. Yes, sir.

Senator GORMAN. None foreign?

Mr. STEVENS. None foreign.

Senator GORMAN. How do the prices compare with those of American engines sold abroad?

Mr. STEVENS. I could not tell you about that. I can only compare them with the prices where I have bought in the last year. I have bought for private companies a very large amount, several million dollars' worth. I can only make comparison with those prices.

Senator GORMAN. By bids, advertising?

Mr. STEVENS. Oh, yes, sir. I happened to remember the price of the rail. I think the last 5,000 tons of rail we bought (it was not very long ago) were delivered over the rail at Baltimore, either Baltimore or Norfolk—Baltimore, I think.

Senator GORMAN. Oh, you are speaking of steel rails?

Mr. STEVENS. Yes, sir; they cost us either \$26.50 or \$26.75; and the American roads pay \$28 at Pittsburg.

(The committee thereupon took a recess until 2.30 o'clock p. m.)





# ISTHMIAN CANAL.

---

## AFTER RECESS.

The committee met pursuant to the taking of recess at 2.30 o'clock p. m., Hon. Joseph H. Millard in the chair.

### STATEMENT OF MR. JOHN F. STEVENS—Resumed.

The CHAIRMAN. Senator Gorman was asking Mr. Stevens some questions when we took a recess. I think he was asking him in reference to the cost of the equipment of the road.

Senator GORMAN. Yes; the construction and equipment of the road.

Mr. STEVENS. I took a note of it.

Senator GORMAN. You made a statement in relation to that and I did not quite understand your answer, Mr. Stevens, whether the Canal Commission and the railroad company had come to any definite understanding as to what proportion of expense for its equipment and construction should be borne by the Canal Commission.

Mr. STEVENS. Well, they have made divisions in their accounting. As I understand, they propose to charge the cost of the double-track construction to the Commission, both tracks to be used for the business of the Panama Railroad, its commercial business and handling the Commission's business, and the maintenance of both tracks to be assumed by the railroad company. I think, although I am not certain, that it has been ruled that the cost of dock construction shall be borne by the railroad company. I am not certain of that; I have not been advised, but that is my impression.

Senator GORMAN. You are in charge?

Mr. STEVENS. Yes; but I have not been advised what their ruling is in regard to it. Broadly speaking, I understand the proposition that all additional facilities in the line of additions, and that are regarded as improvements, by reason of the canal business, are to be charged to the Commission.

Senator GORMAN. Do you know what other service the railroad will render the Commission? I have seen some statement that the supplies, the boarding of the men, has been assumed by the railroad company—that it is to take charge of that. What do you say about that?

Mr. STEVENS. No; that is incorrect. The railroad company are now, and have for a great many years, been running what they call a commissary store at Christobal, or Colon, a store in the nature of a general store, from which they furnish to their own employees in the railroad company, and the general public to a certain extent, supplies. They are supplies that you could get in any general store. There have been several of those stores established in the Zone at different places, as branches of this commissary, by the railroad company, but

the railroad company does not run any boarding houses or hotels for the accommodation of the men or employees of the Commission.

Senator GORMAN. But you purchase supplies at wholesale and retail them out?

Mr. STEVENS. Yes.

Senator GORMAN. Was that because of the conflict between the Panama Government and our Canal Commission which induced the Secretary of War to make that contract in regard to the supplies there?

Mr. STEVENS. Well, really, sir, I could not tell you what the cause—they simply found the store there, and I think they extended it.

Senator GORMAN. Is that necessary for the operation of the railroad, that you should conduct a business of that sort?

Mr. STEVENS. Yes, I think it is; yes, sir. Heretofore it has been almost impossible to get the kind of supplies that our white people demand in our Panamanian stores, although they are improving all the time and extending their lines.

Senator GORMAN. Is it run at a profit?

Mr. STEVENS. The store?

Senator GORMAN. Yes.

Mr. STEVENS. Yes; it has always shown a profit.

Senator GORMAN. Do you sell or loan to men connected with the company, or do sell to establishments outside?

Mr. STEVENS. Nothing except to employees. We did part of this season extend it to consular representatives from other Governments, but the Panamanian Government entered a vigorous protest, and we withdrew that.

Senator GORMAN. Do you have a superintendent to this department that makes the purchases?

Mr. STEVENS. Yes, sir. The purchases are all made through the general purchasing agent of the railroad.

Senator GORMAN. That account alone is with the railroad company, whether it is a profit or loss it falls on the road?

Mr. STEVENS. Yes.

Senator GORMAN. Have you not arrangements with regard to the canal employees for feeding them?

Mr. STEVENS. Oh, yes; we have several small hotels and eating houses at different ports. I suppose we have six or eight of them that we are running ourselves. We obtain our supplies mostly from this railroad commissary. Those are run under my direction.

Senator GORMAN. Both are running under your direction?

Mr. STEVENS. Yes, sir.

Senator GORMAN. Is that being done by contract?

Mr. STEVENS. No, sir; the Commission buys supplies and hires labor, and charges the employees a fixed sum for board and lodging.

Senator GORMAN. Will you not kindly give us a full statement in regard to that matter of the cancellation of a contract for feeding the men on the Isthmus; will you not begin at the beginning and give us your statement of the transaction?

Mr. STEVENS. When I went to the Isthmus the latter part of July there were practically no arrangements made for whites or blacks either to obtain meals, except on the outside or through messes that they might establish themselves, and the question came up as to what they should do. It was imperative to do something. Of course I

was new to the ground and the question came up the very first week. I said that some provision must be made to feed and board these people, and I could not see my way clear to take hold of it, there were so many things pressing at that time. Governor Magoon made a similar statement, that he felt that he could not take hold of the matter for the same reason. So, after talking the matter over with the governor and Mr. Shonts, after Mr. Shonts's return here I understand he advertised for bids to take these houses and run them. Meanwhile a gentleman named Markel came down there on Mr. Wallace's invitation. He was a well-known man of experience on those lines and was invited to come down and give some advice as to how these people should be taken care of. Mr. Markel did come down, and he was there when I got there.

I talked the matter over with him generally as to how the men should be fed and housed—not by whom, but how—and as to whether a commissary should be established along the line, and feeding and eating houses should be put up at different points, and I gave Mr. Markel every facility for looking into the business. There was nothing decided when they came back. Mr. Shonts came back to Washington. The thing drifted along, not very satisfactorily, and once or twice I wrote and cabled to Mr. Shonts, I think, that some step should be taken. Whereupon he advertised for a contract and let a contract to Mr. Markel, he being the lowest bidder. I was advised about it in September by cable, and about the terms. I thought the prices were higher than justifiable. In the meanwhile I had been experimenting and getting information all this time, but when the cable of the contract reached me, which I think was about the 20th of September, I cabled that I was not satisfied with the terms; that they were too high; that we could board them cheaper, or words to that effect.

Then Mr. Shonts came down and Mr. Markel came with him; it was at the time the consulting board of engineers came down. I understood there was a clause in the contract, or an addition made to it, whereby the Commission could cancel it. Meanwhile I had been running these hotels and boarding houses myself, and had demonstrated to my own satisfaction about them; and then when they came down and investigated we were giving as good board as the men wanted, and at considerably less rates than those expressed in the contract. Whereupon Mr. Shonts canceled the contract, acting under the clause in the contract enabling him to do so.

Senator GORMAN. You say they advertised for bids to furnish the supplies down there, and the Markel contract was given after an opportunity was given to other bidders?

Mr. STEVENS. I do not know; that is what I gathered from the impressions I got there. The whole matter was concluded when I was not in the States.

Senator GORMAN. Was anybody else but Mr. Markel invited to the Isthmus for the purpose of looking over the ground?

Mr. STEVENS. I do not understand that any one came there; neither do I understand that Mr. Markel was invited there for the purpose of putting in a bid. I found Mr. Markel there, and I do not know that any one had discussed the matter with him for the purpose of proposing that he should do it by contract.

Senator GORMAN. You only know that, after looking into the matter and advertising, this contract was let and that it was too high?

Mr. STEVENS. Yes, sir.

Senator GORMAN. How much cheaper are you doing it now?

Mr. STEVENS. If I remember the terms of the contract, they were \$40 a month; and we have been furnishing, or we had at that time, and are now, board and lodging for \$27.50 a month.

Senator GORMAN. And that embraces everything—that is, for the laborers and all?

Mr. STEVENS. No, that is for the whites; for the blacks we put up houses and feed them at 30 cents a day gold.

Senator GORMAN. That is run under your auspices; you furnish everything?

Mr. STEVENS. Yes, sir.

Senator GORMAN. And you have a department of supplies, I suppose?

Mr. STEVENS. Yes; I have a department I call a branch of labor and quarters, and it is handled under that.

Senator GORMAN. And he keeps an account and you charge him with everything that is given to him?

Mr. STEVENS. We are supposed to, yes.

Senator GORMAN. Who has charge of that?

Mr. STEVENS. Mr. Jackson Smith.

Senator GORMAN. What compensation do you pay Mr. Smith?

Mr. STEVENS. Seven thousand two hundred dollars a year. He has charge of hiring all the labor and the distribution and care of all the houses and quarters, and everything of that kind.

Senator GORMAN. At the time Mr. Markel went down there had he any relation to the Canal Company or was he simply an outsider?

Mr. STEVENS. I understand that he had no connection with the company.

Senator GORMAN. He had no connection with the organization?

Mr. STEVENS. No, he did not.

Senator GORMAN. Do you think it is necessary, Mr. Stevens, that the Canal Commission should run a commissary department; do you think that is the only way that you could provide for your men and laborers?

Mr. STEVENS. Yes; I think that some such arrangement is absolutely necessary. It may develop in the future that merchants down there will be able to handle this matter for us, but certainly, judging by the past, there was no way to do it except the way we are doing it now.

Senator GORMAN. How were they provided for before you entered on this work?

Mr. STEVENS. The eating houses?

Senator GORMAN. Yes.

Mr. STEVENS. They boarded wherever they could, or established messes, and some of the men kept house. Some of the men keep house there now.

Senator GORMAN. You permit them to have their own establishments, then?

Mr. STEVENS. Yes, sir.

Senator GORMAN. You think you are boarding them for about one-half what the Markel contract amounted to?

Mr. STEVENS. My recollection of the Markel contract is that for whites the charge was \$40 a month, and I know our charges are \$27.50. At the time I left we were keeping even. We might not be furnishing as good board as was contracted for under that other contract, but it is what the men are satisfied with.

Senator GORMAN. What do I understand you to say was the arrangement of the ordinary laborers?

Mr. STEVENS. The majority of them take care of themselves; they buy their supplies wherever they see fit and do their own cooking, and they seem to prefer to do that.

Senator GORMAN. Buy their supplies from you?

Mr. STEVENS. Some of them, and from other sources.

Senator GORMAN. What is your rule about sales?

Mr. STEVENS. I think the commissary is being run at 20 per cent. That includes all the distribution and clerical force and depreciation and loss.

Senator GORMAN. So you add 20 per cent on the original cost?

Mr. STEVENS. Yes.

Senator GORMAN. And that, in your judgment, must continue as long as the Government is doing the work itself?

Mr. STEVENS. Directly or by contract, but so far that would seem to be the only way that we can work it.

Senator GORMAN. How do you manage about your supplies and matters of that sort—do you buy them after advertising here, after making a requisition here?

Mr. STEVENS. We make the requisition the same as we would for any other supplies. I suppose they buy them after advertising. A purchasing agent handles all that; it is something I have nothing to do with.

Senator GORMAN. That is not so with the supplies for the railroad company, is it?

Mr. STEVENS. How is that?

Senator GORMAN. The railroad does not advertise always?

Mr. STEVENS. Yes, and the same purchasing agent; I assume he applies the same rules. You see my work is confined to handling supplies and workmen after they reach the Isthmus. The supply department is not under me at all; they report directly to Washington.

Senator GORMAN. How many men have you employed in this commissary business of yours down there?

Mr. STEVENS. I presume there are fifty or sixty.

Senator GORMAN. What is about the aggregate amount of salaries you pay them all?

Mr. STEVENS. I could not tell you.

Senator GORMAN. You can furnish a statement as to that, I suppose?

Mr. STEVENS. Yes, I can do that.

Senator GORMAN. I wish you would.

Mr. STEVENS. Very well.

Senator MORGAN. Some one has said that Mr. Markel on the rescission of his contract was paid a sum of money for visiting the Zone. Did you know that?

Mr. STEVENS. I know the records show that they paid him a sum of money. That was done here in New York, and I know nothing about it personally.

Senator MORGAN. Do you know what the sum was?

Mr. STEVENS. No, sir; I do not.

Senator MORGAN. While he was there, you saw him?

Mr. STEVENS. Yes.

Senator MORGAN. He was looking after the question as to whether he could afford to make a contract with the Government, and the terms upon which he could make it?

Mr. STEVENS. Not while I was there. My entire conversation with him when I found him there was how we could best take care of these men; there was nothing said between him and me about any contract.

Senator MORGAN. Are there merchants throughout the Zone having stores for the supply of provisions and goods of different kinds for the laboring people?

Mr. STEVENS. Yes, sir; we have them there.

Senator MORGAN. Are they admitted on license—are they given a license to trade in the Zone?

Mr. STEVENS. I could not tell you about that; that is a Government transaction I do not know about.

Senator MORGAN. In the dealings directly between the merchants and their patrons you have no say; you have no charge of that?

Mr. STEVENS. No, sir.

Senator MORGAN. In what coin are the laborers and employees on the road paid?

Mr. STEVENS. The native laborers—the blacks—are paid in silver.

Senator MORGAN. How about the others?

Mr. STEVENS. The whites are paid in gold.

Senator MORGAN. In coin?

Mr. STEVENS. Well, in paper money—in greenbacks and Treasury notes.

Senator MORGAN. What Treasury money is there?

Mr. STEVENS. That is ours.

Senator MORGAN. It comes from here?

Mr. STEVENS. Yes.

Senator MORGAN. The Government has connections with banks there, has it not?

Mr. STEVENS. We do our business through the banks there; yes.

Senator MORGAN. Whenever they want silver to pay off the laborers, for instance, on pay day, do they go to the bank and get it?

Mr. STEVENS. Really, I can not tell you that; that comes within the disbursing officer. I know they pay them off in silver.

Senator MORGAN. Is there more than one bank there with which the Government has dealings?

Mr. STEVENS. I think there are four.

Senator MORGAN. Could you give the names of them?

Mr. STEVENS. The International Banking Corporation, the Panamanian Banking Company, and Ehrman Brothers. I do not recall the other, but I think it is Branton Brothers. I never had any personal dealings with any but one of them.

Senator MORGAN. Has the Government connection with each of these banks or just a selected bank?

Mr. STEVENS. I do not know about that, Senator Morgan.

Senator MORGAN. Referring to this International Banking Company you have spoken of, is that the same bank that has a location in Washington?

Mr. STEVENS. I understand it is.

Senator MORGAN. It has a bank here and that is a branch down there?

Mr. STEVENS. I think they are the same concern. I do not know which is the head, which is the bank, here or down there. It is merely an opinion; I know simply from their names. I never had anything to do with either of them except to occasionally have a draft cashed.

Senator MORGAN. Do you know whether any of the employees there are paid by checks on the bank?

Mr. STEVENS. I have never known of it.

Senator MORGAN. They are all paid in money?

Mr. STEVENS. Always in money.

Senator MORGAN. So an employee of the Government is paid in gold—the gold is counted out to him?

Mr. STEVENS. The gold is paid out to him, or the paper money; yes.

Senator MORGAN. And the same way with the silver money?

Mr. STEVENS. Yes. I have never seen any United States gold paid out there; it is all paid out in bank notes.

Senator MORGAN. Which is considered the equivalent of gold?

Mr. STEVENS. Yes. I know very little of the banking business there.

Senator MORGAN. It is not Panama money?

Mr. STEVENS. Oh, no.

Senator MORGAN. Is Panama paper money in circulation?

Mr. STEVENS. I do not know of any; I do not think there is any issue of it.

Senator MORGAN. The Panama Government deals entirely in specie?

Mr. STEVENS. Yes, sir.

Senator MORGAN. It has no bank issue?

Mr. STEVENS. I do not know of any.

Senator MORGAN. Does this United States money pass current for gold throughout the Isthmus?

Mr. STEVENS. Yes, sir.

Senator GORMAN. I would like to have your estimate as to the time that it would require you to put this railroad and all the plans and the paraphernalia in condition to go to work and actually commence digging the canal—economically, I mean?

Mr. STEVENS. You mean after we have provided it with equipment, etc.?

Senator GORMAN. Yes; how long a time will it require?

Mr. STEVENS. We should be able to start within two or three months, the actual work of the excavation, shortly after the arrival of this equipment, and from that on gradually increase our force until possibly a year or a year and a half from now the maximum output could be obtained, and then that ratio or rate of speed, whatever it might prove to be, would continue for several years until the area of the ground will become so small that it will gradually decrease.

Senator GORMAN. You think in six months you will be ready?

Mr. STEVENS. I think we will be ready in a less time than that.

Senator GORMAN. And that will include your buildings for laborers and other employees?



Mr. STEVENS. Yes.

Senator GORMAN. And the sanitary conditions?

Mr. STEVENS. Yes.

Senator GORMAN. The water?

Mr. STEVENS. Yes.

Senator GORMAN. And the railroad construction?

Mr. STEVENS. Yes. You understand that a large amount of material—I can not say how many yards, but a great many—is required in the reconstructing of the road, that a great deal of that will come from the canal; in other words this material instead of going to waste will go to double trackage.

Senator GORMAN. I would like to have your statement more in detail. I notice in the report of 1904 that you have stated that thousands of yards of the material from the cut in the divide are loaded and hauled by the French equipment over these tracks, which land and dumps are improperly located and unsuited to the end in view; and following that the Secretary of War, in a report to Congress dated September 9, said that a half a million dollars had been expended by your predecessor, Mr. Wallace, in that excavation, the inference being that it was a useless experiment, and a deposit that was in the wrong place. Now, will you not please tell us something about that?

Mr. STEVENS. I can not tell you as to the amount. I can only tell you about it generally from my point of view, as I explained this morning. Neither the track nor the equipment was suitable for handling the work. Recently I gave the opinion that the dumps were improperly located because the hauls were invariably up hill and the dumps were too high, 40 or 50 feet high, and with that class of material, particularly in the rainy season, these extremely high dumps can not be kept under the tracks or, to put it the other way, the tracks can not be kept on top. Twelve or fifteen feet is about as high as you can handle a dump economically; your accidents become so prevalent after that that it is not good policy.

Senator GORMAN. Was the dirt removed, however, useful in the matter of the construction of the canal—what excavation you did?

Mr. STEVENS. Well, not to a very great extent; not working on what we call a system looking forward to a complete plan.

Senator GORMAN. The greater part of that expenditure, then, if it was half a million, say, was practically useless, and does not count in the construction of the canal to any extent?

Mr. STEVENS. Only so many yards taken out, that is all. It is a question of judgment; I should not have done it, but it is simply one man's judgment against another's.

Senator HOPKINS. And that would have had to be taken out at some time?

Mr. STEVENS. Oh, yes.

Senator GORMAN. You do not consider it loss, then?

Mr. STEVENS. Oh, no.

Senator GORMAN. Mr. Wallace's report is that it was done at a cost very much below the estimated cost of removing it.

Mr. STEVENS. I do not know as to that. But I know what it was costing at the time I took charge of the work, and I saw it was costing a good deal more than it should cost if handled another way.

Senator GORMAN. Because that was using the old French steam shovels?

Mr. STEVENS. No, they were not using those at the time I got there, they were using new shovels; but all the other equipment was the old French equipment.

Senator GORMAN. So from that time up to now you have practically suspended the digging out of the prism of the canal and confined your work to sanitary matters, buildings, and equipment of the railroad?

Mr. STEVENS. Yes, sir; and the work of installing the shovels when the equipment is received.

Senator GORMAN. Was not that the principal work that Mr. Wallace did before you got there?

Mr. STEVENS. What is that?

Senator GORMAN. Was not he engaged in the same plan precisely?

Mr. STEVENS. Well, I could not find, as far as any plan he was working to or the men working, when I got there, that there was any definite plan for putting in these tracks; that seemed to be confined to digging out the dirt regardless of whether it was being taken out in conformity to a definite plan for tracks or not. Sanitation work was going on. Building was going on slowly, owing wholly, I suppose, to the nonarrival of the material.

Senator GORMAN. You found that the material had been ordered, but not delivered?

Mr. STEVENS. Yes, sir.

Senator GORMAN. Does the amount of material you ordered approximate the amount he ordered prior to your arrival?

Mr. STEVENS. Exclusive of the equipment, no.

Senator GORMAN. In summing it up in a moment, did you find the work that preceded you had advanced the construction of this canal to any extent?

Mr. STEVENS. Oh, yes; largely along sanitary lines.

Senator GORMAN. And in the ordering of material?

Mr. STEVENS. Yes.

Senator GORMAN. But in the actual work on the strip very little?

Mr. STEVENS. In the canal prism very little.

Senator HOPKINS. Still, as I understand you, in the removal of the dirt there, that would have had to be done by you if it had not already been done?

Mr. STEVENS. I would have had to dig out a certain amount of material to prepare for my tracks. I would have taken out the same, but would not have taken it out possibly in the same place.

Senator HOPKINS. There is simply where two men might differ on judgment in detail, is it not?

Mr. STEVENS. Yes. My theory regarding any piece of work is that it is absolutely necessary, and the most important thing is to get ready—that there is nothing to gain by going ahead until you can go ahead with a fair show at it.

Senator GORMAN. Has the removal of this dirt from the wrong place added to the cost of your work—for instance, in regard to side tracks?

Mr. STEVENS. I can not say it has, Senator; no.

Senator MORGAN. This canal was projected in the beginning for a sea-level canal. I suppose the opening at the top on the upper sur-

face was wide enough to accommodate a sea-level canal; if it carried down 40 feet, for instance, I suppose that is so that it will require no trimming of the slopes above the canal?

Mr. STEVENS. That depends entirely on the width of the canal at the bottom and the slopes that are finally adopted.

Senator MORGAN. I suppose so, and therefore I want to ask you, in the event we should come to the conclusion to build a sea-level canal, what do you think is the least width that would be satisfactory in respect to the commercial necessities of the canal, the prism of the canal?

Mr. STEVENS. Well, Senator, that is one of the details that I should like a little more time to study, but if you desire me to, of course I can give you my opinion at once.

Senator MORGAN. No; I will not press it. If there should be an enlargement of the prism of the canal from 150 to 250 feet what I want to get at is whether that would involve the necessity of trimming back the slope.

Mr. STEVENS. Most emphatically.

Senator MORGAN. The whole length of the entire work?

Mr. STEVENS. Yes, sir.

Senator MORGAN. That would have to be encountered?

Mr. STEVENS. Yes, sir.

Senator MORGAN. At a depth corresponding with the width of the prism?

Mr. STEVENS. Yes, sir.

Senator MORGAN. Now, in trimming back the slope you would also have to include the dumps that the French had put there?

Mr. STEVENS. Parts of them are a little close; yes.

Senator MORGAN. In following the line of the canalization of the French Company along the river and across the Chagres River, I will say between Gamboa and Gatun, if the prism of the canal is increased to 150 feet, is it not necessary to remove a great deal of earth that the French have taken out and piled up there?

Mr. STEVENS. I do not think so above Gatun, or not much of it; I have never been the whole length of the canal, but I have never seen any spot where a pronounced amount would have to be removed; at some places some will have to be removed, no doubt.

Senator MORGAN. Where the work will have to be done over?

Mr. STEVENS. Yes.

Senator MORGAN. Some such occurrence might happen in digging the other way, south?

Mr. STEVENS. Yes.

Senator MORGAN. I want to ask you about the approach from the Caribbean Sea, whether it be a sea-level canal or a lock canal, whether there is any advantage in having a cut made out through the Bay of Limon to the 40-foot contour (that is the contour, I believe, on both sides) to go out straight through the Bay of Limon, or by way of Colon, which, as I understand it, involves a double curve, that you leave the 40-foot contour before you get into the interior bay. What would be your judgment upon the value and uses of a canal, your choice between those two propositions; one going straight out through the Bay of Limon, and the other through Colon?

Mr. STEVENS. Well, not being a sailor, I should say that the straight channel would be a decided advantage.

Senator MORGAN. I have no doubt that you have observed that the first canal commission, what I call the Walker Commission, the Isthmian Canal Commission (I mean the one that first took up the subject and made a report, upon which we acted, and which we in fact adopted), contained a double curve in the bay at Colon, and in order to avoid the difficulties of that curve the proposition was to widen the sailing area to 500 feet, if I remember, there; so that seems to be a very serious difficulty to be overcome in giving a safe exit or a safe entrance to vessels, particularly in time of the high winds or seaway. Do you think there would be also an advantage in escaping contact with Colon. Do you think there would be any advantage to the surface of the canal to remove it, so that the canal would not be right through the city of Colon?

Mr. STEVENS. Under no project was the canal to be through the center of Colon.

Senator MORGAN. It is pretty nearly so, is it not?

Mr. STEVENS. No; it is quite a ways to the west of it. I suppose the channel at Cristobal Point must be half a mile away, or a quarter of a mile even to the outskirts of the town.

Senator MORGAN. Five hundred feet wide would not be much more than enough to cover the seaway there.

Mr. STEVENS. To get back to your first question, you asked me my opinion. It is this. I can not give the percentage, but I should say fully 98 per cent of the time, with any curve there that a ship can be navigated in perfectly still water, without any wind, is perfectly safe, but during the time of northers my opinion is that a vessel coming in straight into the mouth of that canal from the 40 or 45 foot line and then making that curve and turning almost at right angle to the northward, with the wind blowing directly behind her or astern, would have to have a pretty wide channel to make steeage way, to make the curve. That is my opinion.

Senator MORGAN. You would therefore consider that a curve in coming in from the sea to the canal would be a danger?

Mr. STEVENS. I think it could not be as safe as a straight channel.

Senator MORGAN. During your stay there have you had experience in observing a norther?

Mr. STEVENS. Only a moderate one. The day or a day or two before I left there was quite a severe wind, but not so severe that any ships could not lay up at the docks.

Senator MORGAN. Taking the reports of the Hydrographic Office (of course they are correct), I would suppose that those northers frequently become matters of great difficulty and danger to navigation of ships; it seems that they have to cast their anchors and go out to sea?

Mr. STEVENS. They do occasionally; yes, sir.

Senator MORGAN. And many of them often say they have to cut their anchors, leaving their anchors on the bottom of the bay?

Mr. STEVENS. Yes.

Senator MORGAN. That has always impressed me, I will take the liberty to say, of being a very serious objection to the Bay of Colon, through which an approach is made to the canal—the interior waters—on any plan that has heretofore been projected and reported or acted upon, or it has been a very serious question with me as to whether we ought not to move the line of the canal to the westward

and go straight out to sea through the Bay of Limon, even though it must cost \$1,000,000 or \$2,000,000 more to do it, in the interest of safety. You have my idea?

Mr. STEVENS. Yes, sir.

Senator MORGAN. Do you agree with it, or do you wish to correct it?

Mr. STEVENS. I agree with this much of it, that a straight channel is better than a curved one at that point. Colon is practically an open roadstead. As far as my reading goes, it seems that the ships pull out from the docks, but it is not on account of the heavy winds that prevail at the time that the boats are lying there, but it is on account of the heavy swell that comes in, and if they remained tied up to the docks those swells would not only smash the docks but probably the ship as well, and so when those northers come up they cast off their lines and go out to sea. I understand they often go way to Portobello to ride out a storm.

Senator MORGAN. That is 25 miles away?

Mr. STEVENS. I believe it is; I have never been there. So to my mind, whichever way is chosen, there should be, first, a harbor that is safe, and, second, a channel leading to it in alignment in size and direction that is absolutely safe at all times.

Senator MORGAN. Do these hydrographic reports already spoken of indicate that a norther may pass across the waters of the Caribbean Sea 200 miles, even, from Colon, and that the swells from such a norther may reach Colon and make it really dangerous to the ships in there; so that those heavy seas are not always attended by high winds at Colon, that is my point. Now, on the other side, if you please, for a moment. Take either form of canal, the sea level or a lock canal. Is the channel that is there now dredged out between those three islands and La Boca up to the building of that dock, or whatever it is, liable to fill up by drifts?

Mr. STEVENS. There is more or less filling going on all the time. I am working with a dredge in the channel and at the two docks—the old dock and the new dock.

Senator MORGAN. Where did that silt come from?

Mr. STEVENS. That is the discussion among the engineers and various people who have noted it. Some had the theory that it is sand that is brought down from the Rio Grande River, others that it sweeps in from the west, from the shallow ground to the northwest of the bunch of islands.

Senator MORGAN. In either event would it not be proper in the construction of a great canal there 40 feet deep to avoid that difficulty.

Mr. STEVENS. It would be better, of course.

Senator MORGAN. The best thing to do is the thing we have to do.

Mr. STEVENS. You can do either of two things—

Senator MORGAN. Therefore, in entering the Bay of Panama with a canal, I want to ask you whether it would not be better in every sense to make a channel out to the 40-foot contour; that is about where we want to get to, directly out, straight out from the shore, wherever we might touch it, to the 40-foot contour.

Mr. STEVENS. I do not think that at that particular place it would make any difference; that is simply my opinion. Of course in reference to a channel that is not yet dredged, parallel with another,

only a few hundred feet away, no person can express more than an opinion until it is really dug.

Senator MORGAN. If you have to take that in in one case, you have to take in the contributions of the Rio Grande River in the other, because you have excluded that.

Mr. STEVENS. I do not think the contributions of the Rio Grande would amount to anything.

Senator MORGAN. You do not?

Mr. STEVENS. No; I think it is a little drift across the channel that does it.

Senator MORGAN. Do you know whether there is a plan for a channel that undertakes to enter the bay southward of the city of Panama?

Mr. STEVENS. Southward?

Senator MORGAN. Yes. Did you ever hear a proposition of that kind?

Mr. STEVENS. Excuse me, but I think you mean eastward.

Senator MORGAN. Yes.

Mr. STEVENS. Down toward South America?

Senator MORGAN. Yes.

Mr. STEVENS. No; I have never heard of a proposition of that kind; if so, it has escaped my reading.

Senator MORGAN. A proposition like that appeared to me and I wanted to know whether there was any foundation for it.

Senator KITTREDGE. What would be the effect of the northers upon the canal if the canal was straight out to sea?

Mr. STEVENS. Well, that is a pretty hard question, Senator. You mean in filling up the channel?

Senator KITTREDGE. Yes; and the swells and every element that you have suggested?

Mr. STEVENS. I think that the exposed portions of the canal—that is, when you get out of Limon Bay proper—must be jettied, must be protected by breakwaters. That is my opinion. You have asked me lots of questions about points upon which I have not had the benefit of anybody's studies, nothing except my own observations, and when I am a little doubtful about it I want you gentlemen to understand the reason.

Senator KITTREDGE. It is suggested by Senator Morgan that it would be better to have a straight line from the canal to the sea. Now, the northers blow heavily there, of course, at times and the swell is heavy. Would that in any way endanger the canal proper?

Mr. STEVENS. I do not think so. Of course in case of a channel that is cut, no matter how wide and what depth, through a flat or a shallow harbor there is always danger of its filling up.

Senator GORMAN. You have made a very frank statement about the conditions on the Isthmus when you took charge and what your predecessor accomplished and left undone. It leaves one branch we have not touched upon, and that is that numerous surveys have been made, not only on the line of the canal, but more particularly for the dam suggested. To what extent do you find that survey was made by your predecessor?

Mr. STEVENS. The work was going along in very good shape.

Senator GORMAN. How many parties had he organized?

Mr. STEVENS. Well, it is hard work to say, because the work was not being done by regular organized parties in every case—that is, men were detailed to do different works from different places. They were carrying on surveys up on the Chagres, across the divides, between the Chagres and the Caribbean Sea, for the open-cut proposition and tunnels, and then a great deal of work was being done in locating the old French points of the canal, which had never been defined so as to enable it to be exactly mapped. Then the location of the contour lines to the drainage districts of these heavy tributary streams was going on.

Senator GORMAN. How much had you to assist you in completing those examinations?

Mr. STEVENS. We worked probably five or six parties, the equal of five or six parties, I suppose, during the entire time, until recently. We are not doing much now.

Senator GORMAN. Practically the same parties?

Mr. STEVENS. Yes, sir.

Senator GORMAN. So there was a valuable contribution there?

Mr. STEVENS. No doubt of that.

Senator GORMAN. And is it on the data so obtained that you are now about to determine the type of canal?

Mr. STEVENS. It was, of course, pursued with that end in view, to get that information, and a large quantity of it was turned over to the consulting board.

Senator GORMAN. And a valuable work was accomplished, was it?

Mr. STEVENS. I think so, without doubt.

Senator GORMAN. Do you consider that survey now complete, so that you, as an engineer, are content to rest the construction of the dams, for instance, on the data you have?

Mr. STEVENS. Yes; I feel confident of it.

Senator GORMAN. You have sufficient data to undertake a dam 200 feet under ground, to get a start?

Mr. STEVENS. You are asking me now about some details which I would like to study up a little before answering.

Senator GORMAN. Yes, sir. What I want to get is whether, in your judgment, that survey is as complete as it can be made through the parties under Mr. Wallace, supplemented by your own?

Mr. STEVENS. I think so. There is no doubt but what Mr. Wallace and his engineers were working along right lines, according to my information, and have done a great deal of valuable work.

Senator SIMMONS. I just want to ask you one or two questions. You said you had built some hotels and some houses there. Were there not a good many houses already there, built by the French?

Mr. STEVENS. Yes; a large number.

Senator SIMMONS. How many?

Mr. STEVENS. Something over 2,000, large and small.

Senator SIMMONS. Any hotels?

Mr. STEVENS. Almost entirely laborers' cottages.

Senator SIMMONS. Where were they located?

Mr. STEVENS. All along the route of the canal from one end to the other.

Senator SIMMONS. Have you been able to utilize any of them?

Mr. STEVENS. We have repaired vast numbers of them, and are still doing so.

Senator SIMMONS. What percentage of them will you be able to use in repairing them?

Mr. STEVENS. I should say 80 per cent.

Senator SIMMONS. So they are not worthless?

Mr. STEVENS. No, sir.

Senator SIMMONS. You spoke about the sanitation. Where has your work of sanitation been conducted chiefly?

Mr. STEVENS. All along, wherever there are any settlers.

Senator SIMMONS. Have you not done most of the work at Panama?

Mr. STEVENS. No, sir; not altogether. We are working all over the Zone—at every town where there are any people living.

Senator SIMMONS. What is the character of that work of sanitation?

Mr. STEVENS. Draining marshes, cutting grass and brush, clearing away around the camps.

Senator SIMMONS. That is at each end of the canal?

Mr. STEVENS. Oh, no; all along. You see there are fifteen or eighteen small towns along the route of the canal—all the way through.

Senator SIMMONS. Were not these houses that the French built located largely at Colon and Panama?

Mr. STEVENS. No; practically none were located at Colon, except some we are using for white quarters, and practically none at Panama. They were along the line of the canal.

Senator SIMMONS. Has that work of sanitation advanced in a satisfactory way?

Mr. STEVENS. To me, extremely so. You understand I do not direct sanitation; I have nothing to do with it, except the general interest I have in the work. I only judge from results.

Senator SIMMONS. You think the health in the islands and sanitary conditions, and so on, are in reasonably good condition?

Mr. STEVENS. I do; yes, sir. If you will let me explain or illustrate a little in regard to that?

Senator SIMMONS. Certainly.

Mr. STEVENS. The greatest menace to health there to-day is the same that obtains along the Gulf and Mississippi River States, and it is from malaria.

Senator SIMMONS. No worse, you think?

Mr. STEVENS. As far as malaria is concerned, I should say no.

Senator SIMMONS. And in regard to yellow fever?

Mr. STEVENS. As far as yellow fever is concerned, no; and especially taking into consideration New Orleans and its yellow fever this past year. To my mind the health conditions on the Isthmus, on which the success of the canal depends, are now largely a matter of quarantine. The Isthmus, of course, is a great thoroughfare; thousands of people go over it from all parts of the world. Of course, naturally, in the Spanish-American countries their sanitary and quarantine regulations are not up to our standard, and that entails on our quarantine officers a harder task—for instance, if St. John or Liverpool were the ports they had to guard against—and so far as yellow fever is concerned, I do not say that there will not be sporadic cases once in a while. But if we can succeed in keeping it from the outside I do not think we have anything to fear from that.



Senator SIMMONS. Your greatest danger there is from malaria?

Mr. STEVENS. Yes; from malaria. I lived in Texas for three years when I was a young man, and I was exposed there constantly to malaria; I had chills and fever for nearly three solid years; no man ever suffered any worse from it. I do not believe that there is any section where malaria is any worse than where I was, in the southeastern part of Texas along the Sabine River and through Beaumont and Sabine Pass, and I do not think there is any more malaria on the Isthmus than there is in the section of Texas I refer to or in some other parts of our southern States. For instance, in the last two or three years I have been in charge of a piece of road between Little Rock and Memphis. From Memphis, 40 miles west across a swamp land, it has been almost impossible to employ section men to work there on account of the malaria. The only possible labor we have been able to keep there at all is colored labor, to which we paid 25 cents a day in excess of what we paid anywhere else on the line. Now, that condition, as I have said, applies to all that section of the country, and so in Panama it is malaria that is to be dreaded.

Senator SIMMONS. After you have finished your projected work of sanitation do you think the health conditions will be reasonably safe for people of the white race?

Mr. STEVENS. I do. But do not understand that the sanitation work will ever be finished there.

Senator SIMMONS. But when you have carried out your general plan—

Mr. STEVENS. Yes. I took my wife and child there last fall, and they were healthy while they were there.

Senator SIMMONS. You think there is nothing in the health conditions of the Isthmus to interfere with the success of the canal?

Mr. STEVENS. If properly handled, no sir; I do not.

Senator SIMMONS. And there is no more sickness among the employees than you think would be usual in malarial countries?

Mr. STEVENS. I think not; no, sir.

Senator SIMMONS. Such as the Gulf States and the part of Texas that you have referred to?

Mr. STEVENS. I do not think so; no, sir. There is this to be said in reference to the sanitary records. In the Gulf States, the Mississippi Valley, or anywhere else for that matter, even in the North, a person will get a chill and have a fever, and he will keep on walking around and attend to his business. The men down there if they are attacked do not do that; when a man has a chill he is taken to the hospital at once. In that way the number of the cases in the hospital and the number of cases of fever as shown by the records are a great many more than are shown up here.

Senator SIMMONS. I understand. Where do you get your drinking water from down there?

Mr. STEVENS. In Panama, from a reservoir back about 10 miles in the hills, at Culebra, and at Empire we get it from the same source. This reservoir is back near these towns.

Senator SIMMONS. Have you built those reservoirs?

Mr. STEVENS. Yes; we have built them.

Senator SIMMONS. Do they supply water all along the route of the canal?

Mr. STEVENS. Not all along; we are building others.

Senator SIMMONS. You are going to have it connected with all parts of the canal strip?

Mr. STEVENS. Yes.

Senator SIMMONS. I have seen the statement in the press very frequently that an American going there soon finds that the climate takes all the energy out of him. Is there anything in that statement?

Mr. STEVENS. That may be the result of individual experience. I have myself thought no man born and raised in the Northern States can go down there and retain the same liking for work and retain the same amount of ambition that he has up here.

Senator SIMMONS. Does that go so far as to affect his labor efficiency?

Mr. STEVENS. I do not know that it has done so yet, except possibly in some cases.

Senator SIMMONS. Or in the conditions you hope to produce there?

Mr. STEVENS. The general supposition is that a white man ought to spend a month or six weeks out of the twelve months of the year in a colder country. I do not believe the average white man will go down there and stay four or five years and feel as ambitious as he does up here. I would not expect myself to do so if I remained there long.

Senator SIMMONS. What per cent of the population there is white?

Mr. STEVENS. In the Zone, I believe, we have upward of 3,000 whites out of 15,000 or 18,000 altogether on the Zone—that is, of all classes.

Senator SIMMONS. Are they coming in to any extent?

Mr. STEVENS. We are sending people there all the time; yes.

Senator SIMMONS. I mean outside of those who go there to engage in work for the Government.

Mr. STEVENS. A few. There are no settlers because there is no farming; but you occasionally see whites in there that are not brought in by the Commission.

Senator SIMMONS. Why do you pay the whites in gold and the blacks in silver? You may have gone into that, but I was not here when you began your statement this afternoon.

Mr. STEVENS. I replied, I think, that I do not know. This policy was established before I had anything to do with the Isthmus.

Senator SIMMONS. You said that the gold was United States gold, or rather paper money—gold certificates. Is the silver you speak of our silver?

Mr. STEVENS. No; it is the Panamanian issue.

Senator SIMMONS. What is the value?

Mr. STEVENS. Fifty per cent.

Senator SIMMONS. And that is \$1.80 a day you pay, then?

Mr. STEVENS. \$1.60.

Senator SIMMONS. And they pay 30 cents in gold for board and quarters

Mr. STEVENS. Yes, sir.

Senator SIMMONS. Why do you pay them in silver and charge them in gold?

Mr. STEVENS. I was reckoning on a basis of gold; you might say that we charge them 60 cents in silver, to make that clearer.

Senator MORGAN. Has the Government of the United States the exclusive control of quarantines in Panama and Colon?

Mr. STEVENS. I understand they have, by treaty.

Senator MORGAN. By treaty?

Mr. STEVENS. Yes, sir; that is what they call a treaty.

Senator MORGAN. Panama is to us in the United States, financially and politically and commercially, and in every way, one of our most important possessions or interests; would it not be better if the quarantine authorities in the Zone should have the right not only to declare a quarantine as against other countries, but as against itself? For instance, some plague gets in there, coming from these nationalities, in spite of all you can do; a case of bubonic plague or yellow fever gets in and the world gets alarmed about Panama and commences quarantining against her. Would it not be wise to enact a law by which the authorities of Panama would prevent the outgoing from an infected center there—of course, under regulations which the quarantine board would establish?

We have plenty of laws as to excluding persons from coming into our own country, but I do not know of any that authorizes us to exclude people from going out to other parts of our country, and I think if such a law as that is feasible it ought to be enacted for Panama, so when the disease appears there and starts to get a foothold you could prevent egress from that country of people—not of material, not ships, but of people. I did not know how far we had exercised the right of quarantine, whether it extended over the cities of Panama and Colon or whether we had ever attempted there to prevent the egress from the Zone or from Colon, or Panama of persons from a district that was infected.

Mr. STEVENS. I can not answer that, of course, but my understanding is (and of course the records will show) that the Zone authorities have, by treaty or arrangement or whatever it may be called, all of the quarantine and sanitary powers over the towns of Panama and Colon that they possess on the Zone, or all that the proper authorities possess in New York or New Orleans or anywhere else.

Senator MORGAN. There is one other question I would like to call to your attention in preference to anything else. Some of the plans that are submitted to Congress require the putting in of a dam at Alhajuela and one at Gamboa, making two large lakes, with a mouth toward the Atlantic and a tunnel toward the Pacific Ocean. Now, the point I wanted to direct your attention to is this: Would it not require as much to control the locality on which you would build the dam at Alhajuela, which is outside the 10-mile limit, as it would, for instance, to build a dam at Gamboa or anywhere else? If you constructed a dam at Alhajuela now, would you not want the power of controlling that locality within definite limits, so as to exercise all necessary police power, and the right to establish commissaries and everything of the sort? It would be a job that would last five or six or seven or eight years.

It occurs to me that in the draft of the Hay-Varilla treaty the provisions made in favor of the United States as to the condemnation of land and the like do not extend as far as they ought to extend, and I am inquiring of you now, as the practical constructor and engineer, whether it would not be better in case we had to build a dam at Alhajuela that you would have as much power over the forces there and population as you already have, if you build a dam at Gamboa.

Would you think it was necessary to have the same amount of power in building the Alhajuela dam that you have at Gamboa?

Mr. STEVENS. We would have to have the same sanitation provisions, the same police precautions. But my understanding is that outside of the 10-mile belt that gives that power.

Senator MORGAN. I merely wanted to call your attention to that to get your opinion on that, and the opinion of the members of the committee also, as to whether there was any necessity for any action on that subject. At any rate, we want the dam at Alhajuela outside of the Zone.

Mr. HOPKINS. How far is that from Gamboa?

Senator MORGAN. About 11 miles, I think, or 10 miles. It is outside of the Zone.

Senator SIMMONS. I had not quite finished with the questions I wanted to ask Mr. Stevens in connection with labor conditions down on the Isthmus. How many unskilled laborers are you working there now?

Mr. STEVENS. I have had no report since I came up as to the number, but I should say in the neighborhood of 10,000.

Senator SIMMONS. How many can you work when you get this preparatory work in readiness to begin the work of excavation?

Mr. STEVENS. We can not work very many more men than we are working now when we first start; but we will gradually increase as appliances are installed, until, I would say, during the maximum that will be employed, we will be working from 15,000 to 20,000. That is a wide limit.

Senator SIMMONS. Is it contemplated to work that many?

Mr. STEVENS. It is contemplated to work whatever our experience shows it necessary to work the maximum number of machines which we can handle.

Senator SIMMONS. How are they worked—in squads?

Mr. STEVENS. Yes, in gangs.

Senator SIMMONS. Under a foreman?

Mr. STEVENS. Yes.

Senator SIMMONS. What is the treatment—is it kind or harsh?

Mr. STEVENS. It is supposed to be kind, but men are men.

Senator SIMMONS. Generally speaking?

Mr. STEVENS. As a matter of fact, it is kind, generally; yes.

Senator SIMMONS. As laborers are treated here?

Mr. STEVENS. Yes. The West Indian negro is childlike in his disposition, and the ordinary white man, if he treated one of those negroes harshly, would feel toward him, I suppose, if he had any manly feelings, as he would feel toward a child if he treated a child harshly.

Senator SIMMONS. I have heard that they are not always treated justly in the courts down there; how is that, do they get impartial justice?

Mr. STEVENS. As far as I can see, they do. I have known a case when they seemed to be partisan on one side, and then another case where they seemed to be partisan on the other side. I had a black man from Jamacia, who was a foreman. He was arrested by a Zone policeman because he swore at one of his laborers, and he was taken before the nearest justice and fined. You can hear of those things, and you can hear something of the other cases.

Senator SIMMONS. He was a foreman?

Mr. STEVENS. Yes.

Senator SIMMONS. As a rule, in the South a negro does not make a successful overseer.

Mr. STEVENS. No, I know he does not.

Senator SIMMONS. He does there, though?

Mr. STEVENS. Fairly good; yes, sir.

Senator SIMMONS. I understood you to say a while ago that you were in favor of Chinese labor on the Isthmus?

Mr. STEVENS. I have always favored that, yes; I think that if they will stand the climate we will get a more effective force of labor from them, by one-half or two-thirds, than we can get from colored laborers.

Senator SIMMONS. Do you think you would get them for the same rate of wages?

Mr. STEVENS. I hardly think so.

Senator SIMMONS. Did the French use the Chinese?

Mr. STEVENS. They had some there.

Senator SIMMONS. You do not know how their wage rate compared with that of the negro?

Mr. STEVENS. No.

Senator SIMMONS. You expressed the opinion that possibly our American white men might work there and do twice as much work as the men now employed there. You would not suggest that they be paid this low rate?

Mr. STEVENS. Oh, no; they would have to be paid as well as they are paid here, or probably better, but I have not considered white labor seriously because we have not the men here in this country to take there—in fact, the United States needs all the men she can get here.

Senator MORGAN. The other day when Secretary Taft was here we were discussing the question of the effect upon transportation across the Isthmus and upon commerce generally of the abrogation of the contract between the Pacific Mail Steamship Company and the Panama Railroad Company going from New York to San Francisco, and he suggested that since that has gone into effect the Pacific Mail Line had not rendered as efficient service as formerly in transporting goods and passengers, and so on, between San Francisco and Panama, and he mentioned that perhaps you knew better about the practical effect of that than anyone else, as you had been connected with them, and especially in the matter of the cost of goods, and so on, across the Isthmus. If there is any statement you could make about that we would be glad to have it.

Mr. STEVENS. I could not make any statement as to what happened before I went there, and I went there after the abrogation of that arrangement, but the service has not been what I think it should be to serve our best interests, as I remarked this morning. The conditions that exist to-day are to me intolerable when we handle freight through to Panama and then can not get rid of it.

Senator MORGAN. That is what I understand. Have you any suggestions to make as to how to get rid of that trouble? It seems to me we must get rid of it in some way.

Mr. STEVENS. Well, I think we ought to continue as long as the Panama Railroad is a common carrier to do the business if we can.

That entails on us getting a connection that will handle that end of the business.

Senator MORGAN. By purchasing steamers, for instance, and putting on a line?

Mr. STEVENS. I am not prepared to go to that length.

Senator MORGAN. Or by starting coastwise lines?

Mr. STEVENS. I do not know what amendments should be required, but I think we should do one of three things: Find some way to make the Pacific Company furnish boats enough to do that business, get some other line in there to compete, or put on boats of our own. I think I even suggested that we might get transports as an object lesson to them, and a relief to us. I have always found that an object lesson is a good thing to get what you want.

Senator MORGAN. You think the necessity is great enough to require active provision by Congress to meet it?

Mr. STEVENS. By some one, yes; I am ignorant in regard to those things; I look at the practical end of it. I am supposed to handle that freight and my hands are tied. I am criticised, and yet I can not do anything, and it is not pleasant. I think I have made that plain.

Senator GORMAN. Has the board of directors considered that?

Mr. STEVENS. Not to my knowledge; no.

Senator SIMMONS. One other question, which I neglected to ask: With the kind of labor you have got, can you construct that canal within the limits of the estimated original cost?

Mr. STEVENS. That is a pretty hard question, Mr. Simmons. I would not want to be pinned down, because, in the first place, I do not know what sort of a canal we are going to build.

Senator SIMMONS. I am speaking about a lock canal—the original idea.

Senator GORMAN. Ninety feet.

Senator SIMMONS. That is the one upon which an estimate was made.

Mr. STEVENS. You mean the estimate of what?

Senator SIMMONS. I do not know what it was——

Senator GORMAN. The Walker Commission—the 90-foot canal?

Mr. STEVENS. Yes; I would be inclined to say yes to that question; but that is only an opinion and it may be away off.

Senator GORMAN. The question was whether it could be constructed within the original estimate of cost.

Mr. STEVENS. Well, I have been endeavoring to educate this labor up to somewhere what I considered ideal, even for that class of labor. While my efforts have not gone for nothing, still the results are not what I wish they were, and when I say the labor proposition is the big one I mean from strictly the business point of view.

Senator GORMAN. If this labor is only half as efficient as the labor you have been accustomed to in this country, would it be possible to construct the canal within that limit?

Mr. STEVENS. Well, it is merely a matter of opinion; I would hardly care to say.

Senator GORMAN. You say the great problem there is the labor problem, and you have looked into that question carefully. If the restrictions were removed as to eight hours, and you could work ten hours a day, and the contract feature was abrogated, and you would

be permitted to contract for labor anywhere—in China, in Japan, in Spain, or in the United States—then, as I understand it, under those conditions you think it could be solved reasonably well?

Mr. STEVENS. Yes, sir; I do.

Senator GORMAN. And can not be unless those restrictions are removed?

Mr. STEVENS. No; I did not say that; but I say it would be very much easier then.

Senator GORMAN. Then you say simply that it can not be done within reasonable cost; that it would cost you 20 per cent more?

Mr. STEVENS. I say, theoretically, if we can work 20 per cent more with the same money we would be saving 20 per cent.

Senator GORMAN. Yes; but actually?

Mr. STEVENS. Actually we are making a saving, but I do not know whether it would be that much or not.

Senator GORMAN. But you would be able to get better labor if these restrictions were removed?

Mr. STEVENS. I think so; yes.

Senator GORMAN. I see it stated that you are trying to get Spaniards?

Mr. STEVENS. We are making a trial toward getting some.

Senator GORMAN. On what theory—that they are better laborers?

Mr. STEVENS. Yes. I have never worked them. I am taking the reports of others.

Senator GORMAN. If this work were your own what class of men would you look for?

Mr. STEVENS. I should make an experiment with Canton Chinamen. What I mean by experiment is that I would take one or two thousand there and see that they were properly housed and fed as far as I could, although, as you know, Chinamen are obstinate; they want their own way; and I would work them for a few months and see how things resulted. I might say that I am a little disposed in favor not only of the Chinaman as a laborer, but as a man, from my contact with them on the west coast. In fact, I have a very high respect and regard for Chinese of all classes whom I have ever met.

Senator TALIAFERRO. What would be the effect of taking Chinamen in there; what would be the effect on your present labor?

Mr. STEVENS. You mean in the way of a clash?

Senator TALIAFERRO. Yes.

Mr. STEVENS. I do not think there would be any.

Senator MORGAN. I think I will call the attention of the committee to a matter that came before me the other day. Mr. Harris, living 15 miles outside of Los Angeles, who has had a very great amount of work in cutting the Central Pacific Railroad to the mountains and also in connection with the Southern Pacific and one of the other railroads—I think perhaps the Santa Fe—has also built a road through Guatemala, or rather from the capital of Guatemala out. He was here and saw Mr. Shonts, and he came to see me.

He says that after working Chinamen and such other forces as he could get upon these other works, when he went down to Guatemala he found the natives there and employed them to do the work and he said they were the most tractable, most reliable, and best working force he had ever seen. He brought original letters from Mr. Proctor and Leland Stanford and others not only certifying to his character

and ability, but to the amount of work he had done, and he was here for the purpose of informing the authorities as to a source of labor which he thought was entirely reliable.

Mr. STEVENS. That was in Honduras?

Senator MORGAN. No, in Guatemala.

Mr. STEVENS. I have had some papers recently in regard to Indians in Honduras, which I forwarded to my agents, and asked them to investigate, to look into the question of Guatemalan labor. I have a friend who is the chief engineer, I think, of the North Guatemalan Railroad. He wrote me two or three months ago and in his letter he touched upon the question of labor. He said that he was using the natives in his work but that they were all working under stress from the Government, in other words that they were practically slaves, that they were obliged to work. They were given a few cents a day, just enough to support life, and they were forced to work. He said: "Under these conditions you can imagine my labor is very poor, and it is all we have."

Senator MORGAN. My correspondent, to whom I referred, stated this in connection with the condition of those people. He said that he went there to take a contract, and he went out to some of the camps that were being worked by his predecessor in the work. He met some of the natives (he speaks Spanish fluently), and they wanted to know what he was doing, and he told them that he was thinking about taking a contract, and he told them he was glad to talk with them about it, because he would be glad to know how it would suit them. They replied that anything would be a relief to them, and that they hoped that he would come there, as anything would be gratifying; and he did go there and made his agreement with the laborers, and he had the benefit of the best labor which he had ever worked, and never got along more peaceably or quietly with the men who worked under him. So I take it that there is a large group of people in that part of the world who would find relief in being transferred to the Panama Canal.

Mr. STEVENS. That is worth looking up, of course.

Senator SIMMONS. You say it is out of the question, in your opinion, to do this work with American labor?

Mr. STEVENS. I do not think a supply can be gotten.

Senator SIMMONS. You do not think that is practicable or feasible?

Mr. STEVENS. I do not think it is practicable to get them, and therefore the question of whether they could do it is not worth while discussing.

Senator SIMMONS. So you do not think the eight-hour law there can possibly benefit the American laborer?

Mr. STEVENS. No; except if it makes the canal cost more the American laborer will be taxed to pay for it.

Senator SIMMONS. And you do not see how the importation of Chinese there could hurt the American laborer?

Mr. STEVENS. No, sir; I do not.

Senator HOPKINS. Sometime ago you were speaking about the Pacific mail steamships making a congested condition of things there, and in that connection I would like to ask what is the coffee period there?

Mr. STEVENS. It is just about commencing. I would say you might place the commencement of it about the 1st of January—that is,



within twenty or thirty days—and it extends, as I understand it, for about three months. In fact, within the last two days I have received notice that on the 25th they propose to have a very large consignment of coffee there for us. I think that is the first heavy movement.

Senator MORGAN. The coffee-shipping season, you mean?

Mr. STEVENS. Yes.

Senator DRYDEN. You told Senator Gorman that your commissary was in receipt of a salary of \$6,000 a year.

Mr. STEVENS. Yes.

Senator DRYDEN. But I understand he has other duties besides those of providing food?

Mr. STEVENS. Yes, sir.

Senator DRYDEN. That is only a part of what he has to do?

Mr. STEVENS. The man who runs the commissary does not get any such salary as that; this is the man who is in charge of laborers and quarters. The commissary man is employed by the railroad, and I suppose gets \$200 or \$250 a month.

Senator DRYDEN. I think you stated that board costs, for the employees who avail themselves of the privilege, \$27.50 a month.

Mr. STEVENS. Yes, sir.

Senator DRYDEN. Does that include the salaries paid?

Mr. STEVENS. It includes the cost of running the hotel.

Senator DRYDEN. But not the salaries of the commissaries?

Mr. STEVENS. No.

Senator TALIAFERRO. I do not think you understand each other. Mr. Stevens does not estimate that that costs the Government \$27.50; he says the Government charges that.

Senator DRYDEN. Yes; they furnish this board for \$27.50 a month.

Mr. STEVENS. Yes.

Senator DRYDEN. I do not understand whether the salaries paid for Government employees in charge of that are in addition to that or not.

Mr. STEVENS. Only the parties who are directly in charge of running the hotel.

Senator DRYDEN. It covers that?

Mr. STEVENS. Yes, with a proportion, which I can not state accurately about now, an arbitrary percentage of the cost of the general office above them.

Senator DRYDEN. Will you explain very briefly what your system is there as to employing labor and as to buying supplies with respect to protecting the Government against fraud. What is your organization, and how are you able to be certain that the Government is not defrauded as to the number of employees employed, as to their working while on the pay roll, and also as to the purchasing of supplies?

Mr. STEVENS. We have timekeepers, in addition to the foremen, who go around and look at the gangs at work and take the time of the foremen in connection with the foremen. These returns are made to the different division officials, where they are checked up; and in addition the auditor has a force of time inspectors. They are like traveling auditors. They drop into any gang at any time of day and examine it and take the time book away from the foremen and check it up. They are not detectives, because they are known and their work is open, but they are to check the other men who keep the time.

Senator DRYDEN. How often do they make those inspections?

Mr. STEVENS. They are on the work all the time.

Senator DRYDEN. And the same inspector does not certify as to the same gang?

Mr. STEVENS. No; they are traveling from one to the other—they are directly under the auditor, and not under me.

Senator DRYDEN. So, under that system there could be no fraud, except by conspiracy?

Mr. STEVENS. None, except by conspiracy among a number of men. You asked about supplies?

Senator DRYDEN. Before you come to that, about how many men does one inspector look after?

Mr. STEVENS. Well, I presume that varies; that differs with the number of men in a locality. He covers as much ground as he comfortably can; I presume he goes two or three times a day to every gang.

Senator DRYDEN. What is the system of inspection? With three or four hundred negroes of course it is impossible to identify them by their personality, and you must have some check.

Mr. STEVENS. Yes; they have a check—a metal check.

Senator DRYDEN. What method is there to prove that the same man does not answer to two or three or four numbers?

Mr. STEVENS. Well, there is the foreman and the timekeeper and the inspector; they watch them. That is the only way that I know of. We have never had a case of that kind reported.

Senator DRYDEN. When they are paid off what system have you there for checking them to insure that the same men are not paid off two or three times?

Mr. STEVENS. The foremen and the timekeepers in charge of the same gang know that the right men are paid. Regarding the purchase of supplies, of course it is under the purchasing agent; Mr. Ross maintains a force of inspectors wherever he purchases goods. His contract provides for an inspection at the works, the place where the goods or material are bought or manufactured, and subject to reinspection on the Isthmus; and then there is a secondary inspection of the goods on the Isthmus when they arrive, and any defect that has gone by here is caught up there.

Senator DRYDEN. Do you know whether goods of any kind have been bought largely in excess of the reasonable needs of the Government—that is to say, goods which the Government would not, perhaps, need for five years or so?

Mr. STEVENS. I do not know; no, sir. I have heard that stated, but I have not found any yet. Of course the material is not under me.

Senator DRYDEN. This would not come under your personal knowledge?

Mr. STEVENS. No, sir.

Senator DRYDEN. Under whose knowledge would it come?

Mr. STEVENS. Strictly under the storekeeper on the Isthmus, the general storekeeper who reports to Mr. Ross, purchasing agent.

Senator DRYDEN. He would be the proper man to testify?

Senator KITTREDGE. What plans have been made and what progress has been made in the completion of the sanitary improvements at Colon?

Mr. STEVENS. We have had plans adopted by the Commission which are now being put into execution, involving the possible expenditure—I think the estimate was something under \$300,000—it has been called \$300,000 in round numbers, but it is not that much. The sanitation of Colon is a very difficult matter. It is situated on land a foot and a half to 2 feet above the surface of the sea; consequently there is no chance for drainage. The plan we have adopted is, first to dig a channel through one of the very wide streets clear through the town from one side to the other, I think 10 feet wide and 4 feet deep, connecting it with the salt water on both sides, so that the rise and fall of the tide twice in twenty-four hours will sweep through there. I do not think that is an experiment, because we have some small ditches of that kind there already; the railroad company built them several years ago.

Now it is proposed to do a certain amount of filling on those streets; to first establish streets and then pave the streets, that is, give them a coating of rock, which can be obtained very near Cristobal, and then a coating of gravel over the top for the working surface, and then to concrete the gutters and carry the surface water through a tidal channel through the town, with the expectation—which I think will be realized—that it will clean out this water at least twice a day. Then, in addition to that, to put in a sewerage system from house to house, and drain this house sewage into what we call a sump or sewer well and pump that out to the sea. That, in general, is the plan adopted.

I will say that there is some criticism of the length of time we have taken, while we have not done anything else; but I find that while there have been several schemes, such as filling several million yards, which are practically impossible, except in the course of a very long time, that there had been no comprehensive plan at all, and as soon as my duties would admit, after studying the matter for six weeks, I came to the conclusion that there was a remedy that could be applied quicker than any other.

But I wanted the opinion of everybody, and so I appointed a committee—one of our waterworks engineers, the engineer of the railroad company, one of my general staff, one of my division engineers, and a member of the Panamanian Government who was proposed by them, and a member of my sewer engineers, which was the committee to report on sanitation for Colon. They were directed to make their studies thoroughly and report, and they did report. I can not recall the date now; but they took about six weeks with their investigations, and after some discussion I approved their report, with this addition, that while I was morally certain that the drain through the town would take care of that water, that it was not absolute, and in case it did not we would increase our pumping capacity so that we could absolutely take care of it in that way. I recommended the plan to the Commission, and since I came up here it has been approved, and we have been authorized to go ahead.

But before I came up here I started the work of cutting this channel through the town, and they have proceeded a block or two or something like that. They are well on their way. It is a simple job to do that, and we have built a small dredge for that purpose. It will do the work and will make Colon, in my opinion, sanitary. In addition to that, as fast as the Panama Railroad would do it and the water would allow it, we are hauling carload after carload of gravel and

turning it in to our sanitary people, and they have been putting it into the streets. So I have reported that two or three streets there now are in fine shape.

Senator MORGAN. Have you machine shops there?

Mr. STEVENS. We have several small shops; yes.

Senator MORGAN. Can you build dredges?

Mr. STEVENS. Not large dredges. The one I referred to is merely a frame. I presume you have seen something about it in some of the papers—something about a gigantic dredge we have built down there.

Senator MORGAN. How about the propriety of establishing such shops?

Mr. STEVENS. For building dredges?

Senator MORGAN. Yes.

Mr. STEVENS. That would be out of the question.

Senator MORGAN. Why?

Mr. STEVENS. It would require a shop of almost the size and equipment of the shop at Newport News; it is like building steel ships or locomotives. Dredge building is a special branch of the industry, and requires trained men.

Senator MORGAN. And so your dredges have to be built in the United States and shipped there?

Mr. STEVENS. Yes, sir. What I have spoken of as a dredge being built there is merely a clam ocean type; is nothing more than an ordinary hoisting engine such as is used on a pile driver; it is connected with an arm of the derrick, and from that is merely a dipper that opens and shuts; that is all there is to it.

Senator MORGAN. It would hardly be worth the Government's while to undertake to make any part of the machinery necessary on the Isthmus?

Mr. STEVENS. Oh, no.

Senator MORGAN. What progress has been made in reference to bringing water into Colon?

Mr. STEVENS. There has always been a supply there; the Panama Company had a supply near Monkey Hill, but their pumps are getting old, and we are replacing them. We have gone back 700 or 800 or 900 feet now and are building a reservoir. They had a temporary one there, built before I got there, and that has been brought down in connection with the pipe lines and pumps, and now we are relaying the railroad pipe line from the pump house down town.

Senator MORGAN. There are a few other points about which I would like to have your opinion. As to coal, is there any deposit of coal in reach of this canal on the Isthmus that is likely to add to the supply of the canal in the future?

Mr. STEVENS. I do not know of any.

Senator MORGAN. Now, about cement; are there materials there to make hydraulic cement?

Mr. STEVENS. I do not know that, either; but it is what I am proceeding now to find out.

Senator MORGAN. And you will find out?

Mr. STEVENS. Yes. I am arranging for a geologist to accompany me back there, if possible, to make an examination not only for those classes of material, but also to ascertain what there is in the shape of building rock.

Senator MORGAN. So for your supply of cement at present you have to go to the United States or Europe?

Mr. STEVENS. Yes, sir.

Senator SIMMONS. Where do your commissaries get their supplies?

Mr. STEVENS. I think they are bought largely in New York; Mr. Ross could give you that.

Senator KNOX. Are you acquainted personally with the three judges that preside over the courts there in the Zone?

Mr. STEVENS. I know Judge Gudger fairly well; Judge Collins I know well—

Senator KNOX. And what is the other judge's name?

Mr. STEVENS. Judge Duran?

Senator KNOX. Yes.

Mr. STEVENS. I do not know him.

Senator KNOX. He belongs in that country?

Mr. STEVENS. I believe he does.

Senator KNOX. Do you know Judge Gudger?

Mr. STEVENS. Yes; I have met him several times.

Senator KNOX. Does he speak Spanish?

Mr. STEVENS. I am under the impression that he does; I think he at least speaks a few words of Spanish.

Senator SIMMONS. He has learned it since he has gone down there.

Senator KNOX. In Secretary Taft's letter, he says that he speaks it fluently.

Senator MORGAN. What are the current prices you pay for cement at the Isthmus?

Mr. STEVENS. I think they are paying about \$1.95 a barrel now.

Senator MORGAN. Is that Portland cement?

Mr. STEVENS. Yes, sir.

Senator GORMAN. There has been a great deal of comment about the compensation of gentlemen employed on the Isthmus. What is the highest you pay for men under you in the engineering corps?

Mr. STEVENS. \$15,000.

Senator GORMAN. What is the gentleman's name?

Mr. STEVENS. Mr. Sullivan. How does that compare with the compensation that that gentleman would receive here on any one of the great trunk-line railroads?

Mr. STEVENS. I do not know that any lines have a man corresponding with that. The trunk lines here pay for chief engineer anywhere from \$7,000 to \$20,000.

Senator GORMAN. Take this gentleman's case. What work was he on before he went out there?

Mr. STEVENS. He was on the Canadian Pacific. He is a graduate of Cornell, a New-York man.

Senator GORMAN. And his compensation was what?

Mr. STEVENS. I do not know what he was getting; he was a man who had been with me a number of years ago on the Great Northern.

Senator GORMAN. Do you regard his salary as excessive?

Mr. STEVENS. Not for the work I expect him to do; I expect him to take my place fully in case I should break down.

Senator GORMAN. A very high type of man?

Mr. STEVENS. I regard him so; yes.

Senator GORMAN. What is the average compensation of your principal engineers on the work?

Mr. STEVENS. \$6,000 and \$7,500, as I recollect it.

Senator GORMAN. And they could not be had for less?

Mr. STEVENS. I do not say that engineers could not be hired for less.

Senator GORMAN. I mean the type of engineers that you want in this work.

Mr. STEVENS. To my personal knowledge I do not think I could get the type I want for less than that.

Senator GORMAN. What is the aggregate amount; have you any idea of how much you are paying to your subordinate engineers?

Mr. STEVENS. No, sir.

Senator GORMAN. Do you know how many you have?

Mr. STEVENS. I could not tell you that. There is this to be said about the engineering corps. To a certain extent I feel that my hands are tied as to what I should do. For instance, I know that certain members of the consulting board would recommend changes in the course of the canal and for large portions of it, and if changes were made it would have to be gone over again, which would mean that unless I had a large force of engineers on the ground there would be long delays before we could even stake the canal out or make specifications or place it before the public for bidding, or even know what to do, and for that reason I have retained quite a large force there until the canal route is definitely decided. I know I could not get that corps of men together very quickly if I let them go away from the Isthmus. At almost every turn we run up against the question of what is going to be done—

Senator DRYDEN. Do you mean considerable stretches of this ditch will have to be abandoned?

Mr. STEVENS. No; but I have said that it was under discussion to change the route.

Senator DRYDEN. And abandon certain stretches?

Mr. STEVENS. Make changes in the line; not where any great amount of work has been done, possibly, but in other places.

Senator TALIAFERRO. And yet it is possible that the work that has been done may be largely abandoned?

Mr. STEVENS. No; I do not think so; I do not think any sane person would adopt a location for that canal that would mean the abandonment of any large portion of the excavating that has been done. Of course, you understand that a large portion of the work done has been in the Culebra cut, and you can not get very far away from that; but I understand in those discussions it has been proposed that such and such a portion of the canal should be relocated. Of course that would mean delay.

Senator HOPKINS. But the force you have kept there I understand you have had plenty of work for?

Senator STEVENS. Oh, yes.

Senator HOPKINS. You have not held them there in anticipation of what might happen, simply?

Mr. STEVENS. Oh, no.

Senator GORMAN. Still you could reduce your force if the type of canal had been fixed?

Mr. STEVENS. Yes; quicker than I have been able to do it under the present circumstances.

Senator GORMAN. Will you not furnish a list of the engineers and the compensations they receive?

Mr. STEVENS. Yes.

Senator GORMAN. Up to this time there has been \$21,000,000 appropriated and \$5,000,000 more, in round numbers between \$26,000,000 and \$27,000,000, to run this work through up to the 30th day of June next. That is including the engineering department and every other department there, and I presume the material that has been purchased and contracted for, and I understood you to say regarding that \$26,000,000 that there is nothing yet accomplished toward the construction of the canal except the sanitation of the strip and the putting of the railroad into condition to do the work. Is that a correct statement?

Mr. STEVENS. No, sir; not altogether. There has been a certain amount of the cubical contents of the cut removed during this period. I suppose there has been a million or a million and a half yards, or something like that, removed, and in addition to that the work of installing the railroad.

Senator GORMAN. They put it down as a half million dollars for 700,000 yards in the report.

Mr. STEVENS. Yes. I did not know what the figures in the report were.

Senator GORMAN. Outside of that there has been no actual work in the construction of the canal, has there?

Mr. STEVENS. No; except the quarters and sanitation and things of that sort, and the purchase of supplies and equipment.

Senator HOPKINS. The surveys have been made?

Mr. STEVENS. Yes; the technical work has been done.

Senator HOPKINS. And that is an essential part of the construction of the canal?

Mr. STEVENS. Yes, it is essential.

Senator HOPKINS. Could you have gotten along without that information; could your gangs of workmen have proceeded at all without that information in the first place?

Mr. STEVENS. No; that is all in the line of work on the canal.

Senator GORMAN. How much, in the rough, for the survey?

Mr. STEVENS. I would not undertake an estimate.

Senator GORMAN. A million and a half?

Mr. STEVENS. I would not trust my memory with that.

Senator GORMAN. You can give us that, can you not?

Mr. STEVENS. Yes, I can work that up.

Senator GORMAN. There is a material that is described by the engineers of the Isthmian Canal Commission on their examination before this committee at a previous time—a material called indurated clay, or hard pan—which they found at the bottom of wells sunk by the French, and tunnels that had been run by them as test pits to ascertain the character of the material there.

Colonel Ernst testified that he carried some of that hard pan to the surface and immersed it in water and it dissolved, from which he concluded that it was not clay; that it was some other material that had been compacted by pressure. He also mentioned the fact that in that same locality he has found the teeth of sharks in the

wells, a strange circumstance, it seemed to me, and presenting a difficulty as to the friability and dissolubility of the material at sea level that might prove serious in the case of that finding on the bottom of the wall of the canal. Have you ever made any examination of those features?

Mr. STEVENS. I have not tested it by trying to dissolve it in water. I have never seen any of that indurated clay south of the cut or south of San Pablo, as I recollect; but as a matter of fact the French dug a dry dock at Cristobal in this material right off the line of the canal, which is there to-day, and which we have in use and which I am preparing to enlarge.

They simply dug this dock right out of that as they would out of the solid rock, and it has been full of water every since, probably for twenty years, and the walls to-day are as firm and true as the walls to this room. Up and down the Chagres River, up and down the canal there, are several points where this indurated clay, so-called, projects above the surface, and repeatedly in going up and down in canoes and other boats I have examined these almost vertical faces in the comparatively soft ground and have been unable to see that there has been any indication of the action of the water on them.

Senator MORGAN. So you have no apprehension of that material in the bottom of the canal?

Mr. STEVENS. I have not the slightest. I think it would be an ideal material for it. Near this dry dock I am taking down a little hill now, moving the material with the steam shovel to build a switching yard for the railroad at Cristobal. We have to drill and shoot every bit of it before we can handle it with the steam shovel.

Senator HOPKINS. Your attention has been called by Senator Gorman, of Maryland, to the amount of money already expended down there. You have been six months or more on the Isthmus. Now, I want to know of you if you can state as to whether any money has been squandered or misappropriated?

Mr. STEVENS. I do not know of any that has been misappropriated. I do not exactly understand what you mean by squandered.

Senator HOPKINS. I mean recklessly expended.

Mr. STEVENS. I do not know of any.

Senator GORMAN. Do you mean to say that in an immense project of this sort, with a chaotic condition down there, you have not been compelled to use an immense amount of money that ordinarily you would not use?

Mr. STEVENS. I mean to say this: That with better labor, and possibly better superintendents and foremen, we could have gotten more for a dollar out of some of the money that has been expended.

Senator GORMAN. Do you mean to say that in that project, spending that money down there, you have not made mistakes that have cost us thousands of dollars?

Mr. STEVENS. I do not recall any now. Undoubtedly there have been mistakes made, for of course mistakes will be made, and I know I have made them many times myself.

Senator GORMAN. Yes; I was not criticising anybody, but it would be strange with such a condition of things as exists down there if mistakes would not be made.

Senator ANKENY. Referring again to the labor question, I would like to cite my experience with Chinese labor. On the Pacific coast



when I was out there some years ago we got some Chinese, or more properly speaking Cantonese laborers, and we paid them a dollar a day and they took care of themselves; they were the only ones, I am sure, that we could have finished the job with. It was rough work, and they did good work, except when it came to blasting tunnels, and in that work they would not go in. But otherwise they worked well, and we finished that job with them in a reasonable time. That was our experience with them.

The CHAIRMAN. I understand it is your intention to make Cristobal your main point. Is that correct? You are building docks there, are you not?

Mr. STEVENS. That is where we would make our ocean terminal.

The CHAIRMAN. And you are anchoring your ships there and building a dock there now?

Mr. STEVENS. Yes, sir.

The CHAIRMAN. What portion of Cristobal is owned by the Panama Railroad Company?

Mr. STEVENS. The Panama Railroad Company have a title, if you can call it a title—I do not know how to express myself legally—it is not a fee simple, but it is a concession which, I think, did run for ninety-nine years, or something like that, and it now runs about sixty-six years. That gives them 85 to 95 per cent of the entire town of Colon and Manzanillo Island, the balance being owned by the Catholic Church, a small portion, and a few lots by the Panamanian Government. With those exceptions, it all belongs to the Panama Railroad. My understanding is that after some sixty years the title reverts to the United States.

The CHAIRMAN. It looks to me as if the railroad company practically controlled the town of Colon.

Mr. STEVENS. They do.

The CHAIRMAN. Is that correct?

Mr. STEVENS. Yes, sir.

The CHAIRMAN. And when you get your Panama Canal started, which will be from Cristobal, what use will you have for your railroad down to the east and for the town of Colon?

Mr. STEVENS. I can see very little.

The CHAIRMAN. It seems to me that money spent in Colon at present would be simply for sanitary purposes.

Mr. STEVENS. Entirely, but I think the justification is that for a number of years Colon will be the northern terminus of the canal and people will have to live there, and so that would justify the expense of improving the conditions in the city.

The CHAIRMAN. It seems there was a proposition for a sewer and water, and so on, and as that is a difficult matter to handle in Colon, and if you make Cristobal the most important place, the question was whether it was justifiable to go ahead with improvements at Colon?

Mr. STEVENS. I would say yes, because Cristobal and Colon are practically the same thing.

Mr. TALIAFERRO. Speaking of the economy, or want of economy, in the expenditures down there, did not I understand you to say that you had been using some of the French dumps where the material would have to be moved later, and that that has been done since we have been doing the work?

Mr. STEVENS. No; you did not understand me correctly. Whatever material we have to move or will have to move was material that was dumped there by the French.

Mr. TALLAFERRO. Did you not say you were using some of the same dumps?

Mr. STEVENS. Some of the same dumping grounds, but putting it farther in. There has not been a spoonful that we have dumped that will have to be dumped again; no.

Senator GORMAN. I am glad to have you make that statement. There was a public statement that some of the stuff Mr. Wallace had taken out had to be removed.

Mr. STEVENS. No; that is a slur on Mr. Wallace; that is not so at all.

Senator DRYDEN. Mr. Stevens will give us his views, as I understand it, on the advisability of a sea-level canal or a lock canal.

Mr. STEVENS. I think I can come here Saturday.

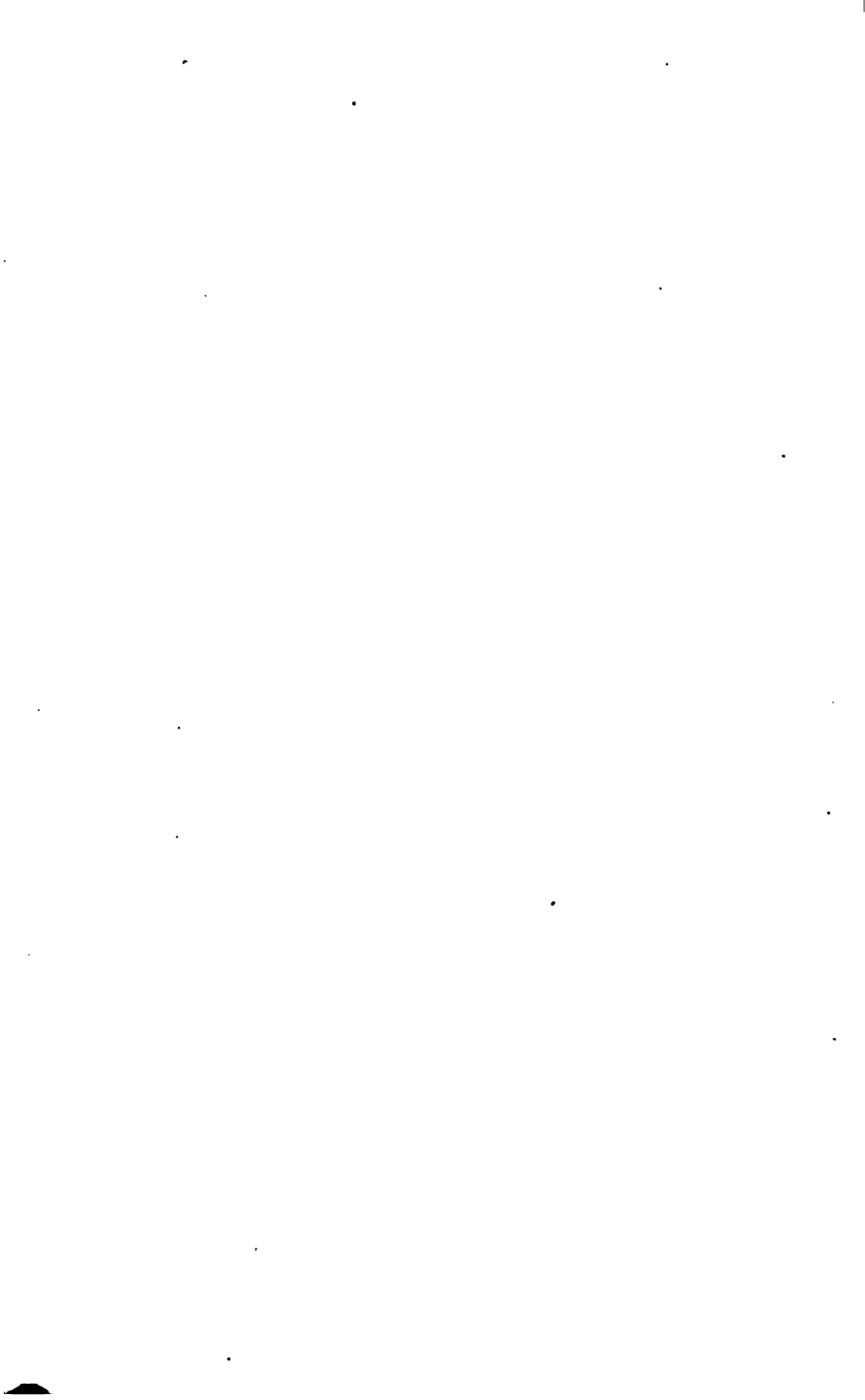
Senator HOPKINS. Then, do you expect to be able to give us your views at that time in regard to a sea-level canal or a lock canal?

Mr. STEVENS. I want to get a chance to get some other view. I have not had the arguments before me up to this time, and I want to examine them. I change my views sometimes.

Senator HOPKINS. You want the time to study both sides?

Mr. STEVENS. Yes. I have not had time to study even the majority report, although I have read it over twice, and I have not read the minority report yet.

(Thereupon, at 4.40 o'clock, the committee went into executive session at the conclusion of which it adjourned until to-morrow, Wednesday, January 17, 1906, at 2.30 o'clock p. m.)



# ISTHMIAN CANAL.

---

## COMMITTEE ON INTEROCEANIC CANALS, UNITED STATES SENATE,

*Washington. D. C., Thursday, January 18, 1906.*

The committee met at 10.30 o'clock a. m.

Present: Senators Millard (chairman), Kittredge, Dryden, Hopkins, Knox, Ankeny, Morgan, Taliaferro, Gorman, and Simmons.

Present also, Poultney Bigelow, esq.

Senator MORGAN. Mr. Chairman, as to the men examined before this committee who are not in official positions, they ought, as a rule, to be sworn; and I request that, in accordance with the rule of the Senate, the witness now coming before the committee shall be sworn.

Mr. BIGELOW. Well, I am a Quaker by birth and bringing up—

Senator MORGAN. Very well; you can affirm.

Mr. BIGELOW. I will affirm.

(The usual form of affirmation was thereupon administered to Mr. Bigelow.)

### TESTIMONY OF POULTNEY BIGELOW, ESQ.

The CHAIRMAN. Mr. Bigelow, we have asked you to come before the committee, as you have been recently at Panama and have gone over that property; and we would like to have you now proceed in your own way to give us your conclusions in regard to what you saw, and, to the best of your recollection, tell us just what you know as to the conditions from Colon to Panama. Go right ahead in your own way and give us your statement, please.

Mr. BIGELOW. I feel a little embarrassed in appearing in any respectable crowd after being designated as a sensation monger, or words to that effect, officially; and therefore, if I may have that privilege, I will take about three minutes in putting in evidence such record as I have—first, as holding a position of trust in the Boston University, in the law department, lecturing to our young men on colonial administration. That I put in evidence, and it is susceptible of proof. Then I should put in evidence in my own behalf the fact that I have published a book on colonial administration, representing travels and studies in pretty much every part of the Tropics, the different islands of the West Indies, the different islands of the Eastern Archipelago, the Dutch and the Portuguese and the British possessions. The result of these was published in a book called "The Children of the Nations." I do not expect anybody to buy that book on the strength of this statement; but it was translated into German by the professor of history at the Berlin University (a most eminent professor) and published in England and in this country. I have also published another book as the result of my studies in Africa amongst negro labor, dealing with conditions in the Transvaal and Portuguese East Africa and the various British possessions, which was translated

into French and published in Paris, and was also published in London and in this country.

I am sorry to appear to be self-advertising, but I am putting this in as simply evidence that can be corroborated by other witnesses.

I have also published a book on the conditions in Russia, under the title of "The Borderland of Tsar and Kaiser," which is a small thing, comparatively speaking.

I have just finished the fourth volume of a book that has cost me sixteen years of labor, "A History of the German Struggle for Liberty," ending with the revolution of 1848, and that is published in England and this country.

Of course all the value of anything that I am doing or have done rests upon some kind of a belief that I am at least decently honest in my statements. If this is not a breach of privilege, I will put that in as testimony. Also the fact that I have lectured at the principal colleges of this country, including West Point, Minnesota University, both the universities of California, Princeton, Yale, Cornell, and so on, and that my character, such as it is, is at stake in this trial. That is all I have to offer in evidence on that point.

But my own personal character does not interest me much compared to the character of such friends as have been brought into this evidence. Mr. Tracy Robinson is a man who was introduced to me by the principal steamship manager on the Isthmus as a man worthy of every confidence, as a merchant in good standing, who has been there ever since 1857. I offer in evidence his picture, which I snapped myself in that swampy street of Colon, standing next to Mr. Sands, our secretary of legation. He is one of the finest specimens of an old gentleman that I have ever seen.

These photographs I took there in the streets of Colon. There is one of Mr. Tracy Robinson standing by Mr. Sands, our secretary of legation there; and Mr. Sands, so far as I know, on my honor, is a very respectable man in the opinion of the people down there. Now, there were a great many men that I regarded as the pillars of the church before this investigation of the insurance companies in New York, and I may be mistaken, but when I came back here I found that my friend Mr. Edmund Clarence Stedman (who is regarded in New York as the dean of American letters, and one of the most respectable men we have, and at the same time one of those that has suffered most in his private affairs) regarded Mr. Robinson as an old friend. And this Mr. Tracy Robinson was invited to write the introduction to a volume of poems published down there by a Mr. Gilbert—a book that ranks with anything of Kipling that I know. So that so far as the hearsay evidence of the town in which he lives is concerned, I have every reason to think Mr. Tracy Robinson a very excellent man, and that he should have sought the position of mayor seemed to me to be the very best thing that we could wish.

However, I only wish to say that so far as I know personally I would trust Mr. Tracy Robinson as well as anybody down there.

Mr. Lundie, who was referred to as discrediting my testimony, I know nothing about, save having been introduced to him as the gentleman who was sent by the General Electric Company to make a voluminous report upon the capacity of the Isthmus for electrical purposes. I know the General Electric Company only by hearsay

as being a very important electrical concern, known throughout the world, and I assumed that they would not send a fool or a knave down there. I was a fellow-passenger with Mr. Lundie. His conversation appeared to me to be sane. Amongst his other fellow-passengers who knew him he had a good reputation, and therefore I do not see that his evidence can be charged with being either dishonest or silly. He may have had an ax to grind of which I know nothing, but, discounting that, he was a man competent to express an opinion.

As to what I saw myself, it was all included within a very short time. I arrived at 10 o'clock in the morning, and I had the best part of two days—that is, as much as I could physically endure. The first two hours I went into this swamp. I do not know how I can explain this excepting by reference to this map. The map is not in detail, but it will suffice for this purpose. May I stand on this chair and point the things out with a pencil?

The CHAIRMAN. Certainly.

Mr. BIGELOW. I suppose most of us have been on the Pennsylvania Railway through Jersey City. I have been there perhaps hundreds of times across the meadows leading from Jersey City toward Newark, and the first time that I went across, like everybody else, I wondered why that swamp was not drained. But certainly that would not be the place to put 10,000 laborers who come at the invitation of our Government to do work for us.

If you can imagine that this is the front of Jersey City, here is the railway there [indicating on map]; the ship comes in from New York and comes into a dock here. Here are the docks. Here is the front of the city of Jersey City, we will say. You can throw a biscuit from the ship right into an oozy swamp. There is one street, known as Main street, where the principal occupation appears to be to watch the ambulances going up and down—very magnificent ambulances, with good mules and very happy drivers—and they are shoveling in the corpses and taking them away to Monkey Hill, which ought to be somewhere about here—yes, Monkey Hill; that is the place. [Indicating on map.] On this scale it ought not to be more than a mile or two. Perhaps there is some one here who knows the exact distance.

The CHAIRMAN. It is about 2 miles, I think.

Mr. BIGELOW. About 2 miles; I am only speaking from a rough observation. You can throw a biscuit into a swamp which is just back of Jersey City, let us say, as the cars run over to Newark. Imagine that. That is an ooze in which these people that land here are compelled to be dumped, because there is no other place for them to go to.

Now, bear in mind at the same time that Monkey Hill is a fine elevation; it is as though you were to plant an army of laborers here in the swamps, as they used to be below the grounds of the White House, instead of putting them up around Capitol Hill. I am not speaking as an engineer; I am only speaking as a farmer, with ordinary powers of perception.

Of course I went over there without anybody guiding me. I could smell my way over there; and there I found what I could not have believed, because I had read only Mr. Shonts's very illuminating or fanciful report that he made in a great speech on the 9th of November—I had every reason to suppose that that was true—and other reports of the same kind.

When I got over to this swamp I found that off this main street the whole of the population was practically living over water. That was the only water they had. They had to use it for laundry purposes, and what other they had they had to collect from their little shacks—you could not call them houses. I found that this swamp was a pestilential swamp; that there were no latrines that were workable; that the privies were, in the instances where I went to see them, this way or that way; they were under water; some could be reached by little boards propped up on blocks of wood or perhaps a little staging, and that sanitation was absolutely impossible. The wagons could not get to it. Men could not get to it to clean away the refuse. And that is the state of things which was pointed out as existing ever since August and which everybody down there knows and sees, and yet which called forth an indignant denial and the statement that everything was in perfect order.

It is a very embarrassing thing for me to introduce names, because if I do introduce in evidence the name of any person who helped me down there I am sure that person's character will not be worth 5 cents by the time he gets through with the official replies. And therefore I will use no names; but if I can be guaranteed the confidential treatment of such evidence, of course I will be glad to furnish them. But I have a letter from—

Senator HOPKINS. Speaking for myself—I do not know how the other members of the committee feel—if you are going to give any information derived from anybody else I want you to give the name of the person from whom you got it, so that we may know something about it independently. I, for one, do not think that such evidence as you suggest is proper.

Mr. BIGELOW. Well, then, I shall leave that evidence out, and only give you the names of certain persons who might with advantage be called by this committee later on. I will confine myself, then, to what I saw.

In fifteen minutes, you may say, I saw all that there was—

Senator GORMAN. Mr. Chairman, I have no objection to the gentleman going on on the line he now proposes to follow, but if the question is to be raised later on the committee ought to decide in private session whether he should be compelled to give the names. The committee desires a very full and complete statement.

Mr. BIGELOW. Mr. Senator, then I will confine myself to direct evidence, leaving the other to later.

Senator KNOX. I understand that you are going to state now simply what you saw yourself, and not what some one else told you?

Mr. BIGELOW. Simply what I saw.

Senator KNOX. Yes.

Mr. BIGELOW. Simply what I saw—that is, as far as I can keep the two separate.

Senator GORMAN. Before you get to that, can you not tell us what your mission was down there, representing what? What brought you to the Isthmus?

Mr. BIGELOW. Senator Gorman, in answer to that question, I will say that I went there at my own expense and at my own motive and with no idea of being able to produce from such a visit more than an entertaining article, possibly, about life on the Isthmus. I had no reason to expect to find what I found. I wrote nothing until I

got back, and then I thought it would be an interesting article for Harper's Weekly. I offered it to them, and they declined it. I did not go into the question of the literary merits of the article. I offered it to Collier's. They declined it. Then I met the editor of the Independent at the Century Club at lunch, and he asked why I did not let him have it. I knew that the Independent had a small, select, rather religious circulation. However, I thought, "As nobody will take this thing, it must be uncommonly poor stuff," and let him have it. That was all my mission there.

Senator GORMAN. You were not representing any interests, then, in the United States?

Mr. BIGELOW. No interests whatever—no interests whatever.

Now, if I had only had that two hours in Colon, and returned by the steamer sailing that noon, I would have made enough to give me the main material that I furnished. The afternoon, however, I spent in going the length of the railway and coming back, where you see on all sides the debris of the old French company and the general nature of the soil. An engineer would, of course, have noted many things of interest which I was incapable of noting, except in so far as they were pointed out to me by people on the train with whom I talked. One of them was a man who told me that he had charge of the telephone service down there, and had been seven months on the Isthmus. That, of course, is not evidence; but I could see the conditions at Panama. I spent a couple of hours there, went up on to Ancon, saw the hospitals, and talked with Mr. Reed, our present acting governor, I believe, and simply got a general view of the city, just as a stranger might see this capital and appreciate its beauty as compared to Paris or London—a bird's-eye view.

But the next day I had that time on my hands—apparently an idler there; so I spent all of that time in that swamp.

Senator SIMMONS. At Colon?

Mr. BIGELOW. At Colon. I had then from—we may say the day begins there with daybreak, at 6 o'clock, and I had from then until the steamer sailed at 2. So I spent the time in walking up and down, as well as I could, and I will venture to say that I never did a thing in which I felt that my own life was so much in peril as in doing that, because I thought there must be good reason why Mr. Taft had refused to go and see this swamp, no matter who had suggested it; there must be good reason why Mr. Magoon has never gone to see it, and the people around the place spoke of nothing else.

Swamps are not exactly in my line. They are matters for a farmer—to dig a ditch and drain off the water, or, if that can not be done, with only 10,000 people there, there is nothing simpler than to put them under canvas up on the hill, as a military measure. But I must have gone into at least 100 houses; and Mr. Tracy Robinson did not steer me in the conventional sense. I asked him to show me the worst places, and to show me the whole of it there. We went from one end to the other, and then through it; but I took my own line, wherever I felt that I would like to go on my own account. I would pop into a house and ask permission to see their quarters, and ask what rent they paid, and ask, especially, where they put their swill and their filth—their human excrement. I found there was no possibility of putting it anywhere other than dropping it between the slats, or anywhere they chose; that sanitation was impossible, excepting occa-



sionally by way of—well, this is not evidence, but it is my impression that if there is no dishonesty amongst the officials we have arranged a system under which dishonesty can flourish to the greatest extent.

I saw an illustration of it in the case of a very excellent negro who owned his own land, which is a rare thing down there. He owned his land, and had taken great pains to fill in a little part of his swamp by ashes and such refuse. He told me that he had, at great labor, saved up some water there. There is no other means of getting water to drink than saving it up as it drips from these little shacks in the swamp—they are on stilts over the water—and when he gets his little supply well saved up, along comes an inspector—one of our men—and says to him, "There are microbes in your water; you have got to upset it." And there are the man's savings, all that he has there, with no means of getting any water, to be thrown out. Well, now, it is done sometimes even in New York, and I have known it to be done in Russia, and I have known it to be done in Cuba under the old régime—the inspector comes there, and if you give him \$5 he walks on and upsets somebody else's water.

Senator HOPKINS. Was that in Russia that you speak of now—that they give the \$5?

Mr. BIGELOW. I am speaking of Russia. They will change the \$5 into Russian money; but I am speaking of Russia.

Senator HOPKINS. You are not now speaking of what took place in Colon?

Mr. BIGELOW. I am not saying what took place there, but I am saying what that man said took place, and I am saying what is most humanly natural under such conditions as prevail at Colon. The tropical heat has a very deteriorating effect upon the moral senses of a man, and when you give a subordinate official the right to make his inspections in that manner and in that way, and where his salary is not adequate, that is a means of making money which has been used in all times in tropical colonies and which has to be guarded against with the greatest possible care.

Senator KNOX. Is that the instance you refer to in your article?

Mr. BIGELOW. That is the instance; yes, sir.

Senator KNOX. Yes; thank you.

Mr. BIGELOW. I heard of other instances of the same kind, but that is not common-law evidence. But when you hear a consensus of the same objections to a system in a place of that kind, and where it is so very plausible under the conditions, and where you find it substantiated by people who live and transact business in the place, it is a thing worth looking into, at least.

Senator HOPKINS. Did you get any information to the effect that the inspectors' conclusions regarding the condition of the water there were not correct, and that it would not be deleterious to health to keep it?

Mr. BIGELOW. I got this conclusion, sir, that the inspectors there—

Senator HOPKINS. I am speaking now of this particular instance.

Mr. BIGELOW. I had no evidence beyond what this property owner told me—no evidence but that. But I would have great difficulty in proving to you that there was anything like dishonesty in the management of the New York police, and yet I can furnish you indirect evidence that would satisfy a tribunal such as this.

Senator HOPKINS. We are more interested in Colon than New York, now.

Mr. BIGELOW. I understand, however, that you want me to give my impressions as one who has studied similar conditions.

Senator HOPKINS. No; we are asking for facts.

Mr. BIGELOW. Impressions may be facts. An opinion is sometimes a fact.

Senator HOPKINS. If you can make a distinction between them in giving your testimony, I wish you would, so that we may know what are facts and what are impressions.

Mr. BIGELOW. I will try to limit myself as you wish.

Senator KNOX. Mr. Chairman, lest this matter get into such a shape that we do not know exactly what lines we are pursuing, I will ask you to instruct the witness generally (if I am correct in my estimate as to why he was called) to state the facts upon which he based his article upon "Our Mismanagement at Panama." Is not that what he was called for?

The CHAIRMAN. That is my understanding; and I would like to have him confine himself to the facts, as nearly as possible, in this examination.

Mr. BIGELOW. The facts that I am speaking of now are the visits to approximately 100 different houses in this swamp which Mr. Taft and Mr. Stevens and Mr. Shonts and the officials generally have regarded as in a condition of decent sanitation; and in every one of these instances, visiting that swamp without any steering, I found a condition of things that was dangerous to health. I found, moreover, that the attention of the authorities had been called to it, and that, instead of receiving any relief, those who took the trouble to call the attention of the Government to this state of things rather got the worst of it. I have in my hand a letter from a person in Colon to Congressman Wadsworth, written in August, pointing out the exact state of things which I saw in the end of November or the first of December.

Senator SIMMONS. Who is that letter from, do you say?

Mr. BIGELOW. That letter is from a merchant in Colon.

Senator SIMMONS. To whom? I did not catch that.

Mr. BIGELOW. To Mr. Wadsworth, the Congressman, of New York. Mr. Wadsworth is at liberty to make that letter public if he chooses. It shows that the state of things was then as it is now, and that it has been a continuing state.

Senator SIMMONS. Are you in possession of that letter?

Mr. BIGELOW. Yes.

Senator SIMMONS. Do you feel that you are authorized to give it to the committee?

Mr. BIGELOW. I do not feel that I am authorized to give it to the committee, because the committee has it in its power to get it elsewhere. Besides, I had conversations on the steamer with men coming and going, and they are also many men that are regarded as respectable merchants of the place and engineers whose names I did not mention, did not think it necessary to mention. I have also had conversations in Jamaica in regard to returning negroes there, regarding the negroes who were coming from Colon. But as far as Colon is concerned, my visit to those hundred shacks there, the condition under which they lived, the fact that there was no water to

drink there, that there was no possible sanitation, and still that the Government was professing to have a condition of sanitation there, I take it that that is all the evidence upon that point that the committee can ask of me in direct form.

The CHAIRMAN. I think, Mr. Bigelow, that what the committee would like to have are your own impressions and what you got from your own actual knowledge of affairs on the Isthmus, from one end to the other—not necessarily confined to Colon, but the entire line of the railway and canal.

Senator KNOX. Mr. Chairman, do we want his impressions? Do we not want to have him give the facts and let the committee draw its own inferences?

The CHAIRMAN. I think we want facts, but I think perhaps it would not be amiss for him—he has given us impressions—

Senator KNOX. I do not see how he can well avoid giving some deductions, he naturally would do that; but it is a pretty broad instruction to ask for his impressions. I do not see that that would guide us much.

The CHAIRMAN. What we want especially, Mr. Bigelow, are the facts so far as you know them.

Senator SIMMONS. Mr. Chairman, Mr. Bigelow has also given a number of statements made to him by various persons that he interviewed while he was on the Isthmus. Those statements have been questioned. I think that he ought to be given an opportunity not only to relate those statements, but to give any reason why he thought the statements were worthy of belief.

Senator KNOX. Yes; if he will give the names of the persons who made the statements I see no objection to that, but not to say that he conversed with what appeared to be a reputable merchant on a ship, or something of that kind.

Senator SIMMONS. I understand that, of course, he will give the names of those persons if the committee shall finally demand them.

Senator HOPKINS. That was the point that I made. He was starting, originally, to make these statements, and prefaced his remarks by saying that these people would be shown to be disreputable or discredited people if their names were known.

The CHAIRMAN. I think, Senator Hopkins, that it is the expectation, after we get through with this witness's general examination, to have a private statement from him in regard to these matters.

Senator HOPKINS. Anything that he gives in public, however, I think ought to be in a form that can be either corroborated or contradicted.

Senator SIMMONS. I think we ought to decide now whether we are going to demand those names or not, because that seems to be a precedent to whether he should give his statements or not, and to eliminate all those things breaks the continuity of his statement.

Senator KNOX. I think so, too.

Senator HOPKINS. I agree to that.

The CHAIRMAN. You may proceed, then, Mr. Bigelow.

Mr. BIGELOW. This may, perhaps, come in evidence: I was inclined to think that the committee wanted my impressions, because I have made a study of labor conditions in the Tropics under fairly cognate circumstances.

Senator HOPKINS. Mr. Bigelow, you stated that in your article,

and you gave your impressions there. Now, speaking for myself on the committee, what we want are facts; and I care for nothing beyond that, because when we get the facts we can draw our own conclusions.

Mr. BIGELOW. Here is a fact—the fact that many engineers of distinction have declined the offer of the Government to take charge of that work.

Senator KNOX. State who they are, now.

Mr. BIGELOW. I could not state them all—

Senator KNOX. Well, state some of them.

Senator HOPKINS. State any of them.

Senator KNOX. State one.

Mr. BIGELOW. I will state, for instance, the most distinguished engineer in the neighborhood of Boston.

Senator KNOX. What is his name?

Mr. BIGELOW. His name is John R. Freeman.

Senator KNOX. Now another.

Mr. BIGELOW. I am inclined to think, without knowing—

Senator HOPKINS. Well, then, if you do not know, I would not speculate on it, I think, Mr. Bigelow, because that takes the time of the committee.

Senator KNOX. You started out by saying, "Now, here is a fact—that many engineers of prominence have declined this work." If that is a fact, tell us what the fact is. Who are these engineers? You have named Mr. Freeman; who else?

Mr. BIGELOW. Perhaps I will put it in this way, then—that my opinion is—

Senator KNOX. But you stated that it was a fact. If you do not mean that it is a fact, but if it is your opinion, of course you can modify your statement.

Mr. BIGELOW. Mr. Roosevelt will tell you.

Senator KNOX. Well, he is not on the stand now; you are the man who is testifying.

Mr. BIGELOW. And men who have been approached and have declined do not wish to appear to be unfriendly to the Administration. I find a most extraordinary dislike of discussing this thing among eminent—

Senator KNOX. Will you be good enough to confine yourself, just for the instant, to answering the question that I put to you a moment ago? Name the engineers who have declined to accept the Government employment, to which you refer?

Mr. BIGELOW. I do not think that would be a fair question.

Senator HOPKINS. Then do not go into that branch of the subject.

Mr. BIGELOW. You are asking me for facts.

Senator KNOX. It is for the committee to determine whether that is a fair question. You have volunteered the statement after we had called your attention to the distinction between facts and your impressions, "Now, here is a fact—that many eminent engineers have declined the service of the Government" because of these reasons which you have just enumerated. If that is a fact, I want to know the names of those gentlemen or for you to say that you do not know them.

Mr. BIGELOW. I do not have to say that I do not know them, because I have spoken to one other whose name it would be embarrassing to him to have brought forward here.

Senator KNOX. Mr. Chairman, I shall insist on an answer to that question.

The CHAIRMAN. I think it is proper that the witness should answer the question.

Mr. BIGELOW. Mr. Chairman, when I say I am stating a fact, it is a fact that it is my opinion—it is my opinion that others have been approached, men of the first eminence, who have declined to mix themselves in this canal, because they have not a free hand. Now, that is a fact that I know that.

Senator KNOX. Now, you have modified your statement of a moment ago that it is a fact that certain engineers, whom you thought you ought not to be compelled to name, had declined the Government service. You now say it is a fact that it is your opinion that that is true. Which one of these statements do you now want the committee to understand to be yours?

Mr. BIGELOW. Well, you can take them both; but it would be very embarrassing for some friends of mine who have spoken to me in private to have their conversations quoted.

Senator KNOX. Mr. Chairman, if the witness says that it is a fact, and that he is withholding names for reasons which appear good to him, I insist upon a ruling of the committee either that he shall be compelled to answer, or that he is correct in his position. In other words, I insist upon a ruling.

Senator HOPKINS. Either he must withdraw his testimony or make it full and complete.

The CHAIRMAN. I do not understand, Mr. Bigelow, that you state that you know this from actual knowledge, but that you have heard it from some source and have an impression that this work has been offered to other engineers, and you have now named Mr. Freeman.

Mr. BIGELOW. Well, I withdraw the name of Mr. Freeman, then. I withdraw his name because I have not asked his permission to use it, and I have my information from private conversations when the matter of the canal was discussed, not officially, but simply amongst friends. I have met other eminent engineers, amongst others the gentleman—

Senator HOPKINS. Mr. Chairman, I insist that this kind of evidence will not do, before a committee or at any other place. The gentleman must take one position or the other. If he is going to enlighten us on any subject he must be frank and full and fair or else it must not be given at all. The idea of his making a statement that "many eminent engineers have declined this" because of Government interference, and then undertaking to keep from the committee and from the public those names, is, in my judgment, trifling with this great subject.

Mr. BIGELOW. Mr. Senator, will you permit me to put in evidence an article or a series of articles by Mr. Wallace, contributed to the Engineering Magazine?

Senator KNOX. I should think that would come after we have disposed of this other proposition.

Mr. BIGELOW. Because that covers this.

Senator HOPKINS. Mr. Wallace is able to speak for himself. This witness is now upon the witness stand and is giving his testimony, and I either want all that he has said regarding this subject with-

drawn by him, or I want the committee to insist upon his giving the names of these engineers.

Senator MORGAN. He can not withdraw it.

Senator HOPKINS. Then we have the right to have the names of the engineers. We have the right either to contradict this man or to confirm his statement.

Mr. BIGELOW. Mr. Chairman, you have a better witness in the President and Mr. Taft.

Senator HOPKINS. You are on the witness stand, and you are the one that has injected this matter before the committee.

Mr. BIGELOW. I can only—

Senator KNOX. These observations are not being directed to you, Mr. Bigelow; they are being directed to the Chairman.

The CHAIRMAN. I think, Mr. Bigelow, that what we want from you is actual knowledge on your part in regard to any statement you may make.

Senator MORGAN. I understand, Mr. Chairman, that there is no object of this investigation at all except to settle some kind of a contention, or dispute I will say, between Secretary Taft and Mr. Bigelow, or between the President of the United States and Mr. Bigelow, or between some other gentleman and Mr. Bigelow; and that Mr. Bigelow has been called here, if he has been called at all—I suppose he has been summoned—

The CHAIRMAN. Yes, sir.

Senator MORGAN (continuing). To enable this committee by a sort of cross-examination to find whether he has been telling the truth in this article or not. That is the proposition, and I think Mr. Bigelow ought to have every proper opportunity to inform the committee of the sources of his information and the character of the information, so that the committee can determine whether Mr. Bigelow has told the truth in his article in the Independent. That is my understanding of the purpose of his being here. I would like to remark, also, that I see no purpose connected with Mr. Bigelow's examination that has any possible advantage in it for the construction of a canal. I am interested in the construction of a canal, and I am not interested in the gossip or the opinions of men who circulate about that place or other places for the purpose of making graphic or sensational statements on this question. They have no weight and ought to have no weight with this committee. We have to investigate the facts ourselves.

Senator KITTREDGE. Mr. Chairman, Mr. Bigelow was summoned at my suggestion, and it was for the purpose of ascertaining the facts upon which he had stated that the condition of affairs at Panama had been mismanaged.

Senator MORGAN. The Senator's remark has furnished me an opportunity of saying this: There is a question here of the confirmation of all these gentlemen who have been nominated as Commissioners. If Mr. Bigelow's testimony will bear upon that point, upon the efficiency of their conduct, its industry and its fairness to the Government, let him go ahead and let us see all we can find out about that. But there is no other issue before this committee that this testimony bears upon at all, so far as I can understand, except to merely settle a question of veracity between Mr. Bigelow and those who have accused him of having made incorrect or partial statements.

Senator KITTREDGE. I suggest, Mr. Chairman, that that was not the purpose I had in mind in suggesting that the witness be summoned. As I stated a moment ago, it was simply for the purpose of ascertaining what facts were in the possession of Mr. Bigelow relative to the management of affairs at Panama.

Senator MORGAN. I can see from looking at the map there that all that relates to Colon can easily be entirely eliminated from this controversy by simply commencing where the Mindi River crosses that line and going out from the Vale Limon to the 40-foot contour. A straight line going out to that will leave Colon out of the question, 5 miles away.

Senator SIMMONS. Mr. Chairman, so far as I am concerned, I do not care anything about the controversy between Mr. Bigelow and Mr. Taft or Mr. Stevens. I want to know what he saw down there.

The CHAIRMAN. That is what we want to know, Mr. Bigelow—what you saw during the time you were at Panama.

Senator SIMMONS. And I want to know why he accepted certain statements that he put in this article as true, that the committee may determine whether those statements are reliable or not.

Senator HOPKINS. And I wish, Mr. Chairman, to disclaim on the part of the Secretary of War that there is any controversy between him and this gentleman.

The CHAIRMAN. I have not understood that there was.

Senator HOPKINS. There is no controversy. This gentleman has written an article relating to the condition in Colon. He is called here to give the facts relating to that matter, so that we can make a more thorough investigation than his article would warrant. Instead of doing that, he has broken off and made a statement here regarding a number of eminent engineers, as he claims, who have declined service for specific reasons enumerated by him. I insist that the witness, after going that far, shall be compelled to give the names of those men. The committee is entitled to it and the public is entitled to it. No man should be permitted to make a general statement of that kind without furnishing the information that will enable us to either contradict or confirm his statement.

Senator SIMMONS. Mr. Chairman, I agree with the Senator that if he is going to make statements here based upon information that he has received from somebody else he ought to give the name of the person to whom he refers. The statement is worth nothing to us unless we know who his authority for making it is. And therefore I suggested a little while ago—and I renew that suggestion now—that before we proceed any further, in the interest of the economy of time, we determine the question as to whether we will require him to give his authority or to omit from his statement all reference to these persons.

Senator MORGAN. I object to his withdrawing a word that has been said here. It has been said under oath, and has been taken down.

Senator SIMMONS. I do not mean to withdraw anything that has been said, Senator; but I am suggesting a rule for the future.

Senator KNOX. Mr. Chairman, I move that the witness be instructed by the chairman that where he makes a statement based upon information which he received from others he shall name the person from whom he received the information.

Senator MORGAN. That is clearly right.

Senator SIMMONS. Or omit all reference to the matter.

Senator HOPKINS. I second the motion.

The motion was unanimously carried.

The CHAIRMAN. Mr. Bigelow, you have heard the resolution which has been unanimously adopted by the committee. Now, you will please proceed on the lines suggested.

Mr. BIGELOW. Well, I have no interest in this canal except the same interest that Mr. Taft has and that Mr. Roosevelt has.

Senator HOPKINS. Mr. Chairman, I insist, now, that instead of the witness making a discursive argument here, in which we are not interested, he shall obey the instructions of the committee and give the names of those engineers. That is the subject that is now before us.

Mr. BIGELOW. I do not think the Senator means to ask me to tell in public the things which were given to me in private, without authority to publish them.

Senator HOPKINS. I mean this, Mr. Bigelow, that you have injected into your testimony a statement that is, in the minds of some of the committee, questioned, and therefore we have a right to compel you to name the men; and the committee has just decided that you shall do so.

Mr. BIGELOW. The committee can put me on bread and water, and even condemn me to Colon, but they can not make me give away people who have not given me authority to quote them.

Senator KNOX. Mr. Chairman, I move that we go into executive session.

The committee thereupon went into executive session, after which a recess was taken until 2.30 o'clock p. m.

#### AFTER RECESS.

At the expiration of the recess the committee resumed its executive session; after which the doors were opened and the following proceedings were had:

#### TESTIMONY OF POULTNEY BIGELOW, ESQ.—Continued.

Senator MORGAN. Mr. Bigelow, you have made a statement to the committee in the course of your examination to-day that the stenographer will read to you.

The stenographer read as follows:

Mr. BIGELOW. Here is a fact—the fact that many engineers of distinction have declined the offer of the Government to take charge of that work.

Senator MORGAN. You have also named one of the engineers who, you say, declined on that account—Mr. Freeman.

Mr. BIGELOW. That is my opinion.

Senator MORGAN. What do you say?

Mr. BIGELOW. That is my opinion.

Senator MORGAN. Is that your statement?

Mr. BIGELOW. I have no right to speak for him. That is—

Senator MORGAN. No, no; you speak for yourself. Did he say so to you?

Mr. BIGELOW. No.



Senator MORGAN. He did not?

Mr. BIGELOW. No.

Senator MORGAN. What right have you to say that your are of that opinion, then?

Mr. BIGELOW. None, except the right you give me by asking me my opinion.

Senator MORGAN. Who asked you your opinion?

Mr. BIGELOW. Well, then, if I have not the right under your question to give the opinion, I withdraw the opinion.

Senator MORGAN. No; you can not withdraw anything. You have no right to give any opinion or make any statement to this committee unless in response to a question.

Mr. BIGELOW. I make it as my full responsibility for my opinion.

Senator MORGAN. We are not speaking of responsibilities; we are speaking now about the duties of a witness. Can you give to this committee the name of any engineer who has made a statement to you of that purport and effect?

Mr. BIGELOW. I certainly should not give the name of any person who had given me any information confidentially.

Senator MORGAN. I did not ask you what you would do; I asked you if you were able to do it.

Mr. BIGELOW. That is my answer.

Senator MORGAN. That is not an answer to my question. Do you know, in fact, that any engineer has made such a statement to you or to any other person in your hearing? Do you know it?

Mr. BIGELOW. I am not willing to answer that.

Senator MORGAN. Very good. Then you refuse?

Mr. BIGELOW. If you will excuse me—

Senator MORGAN. No; we will not.

Mr. BIGELOW (continuing). I wish to explain.

Senator MORGAN. No; there is no explanation necessary.

Mr. BIGELOW. Have I the right to explain?

Senator MORGAN. Can you state the name of any man who is an engineer who has informed you that in consequence of conditions on the Isthmus or in consequence of the regimen there—the management—he was unwilling to go to the Isthmus and serve the Government?

Mr. BIGELOW. May I answer that by turning it upside down?

Senator MORGAN. No, sir; you will answer it straight, just as I put it, if you please.

Mr. BIGELOW. I have spoken with several engineers since I have been back, and, amongst others, with the editor of the Engineering Magazine; and those—

Senator MORGAN. Give his name as you go along.

Mr. BIGELOW. His name is Dunlap. I do not know his initials. His name is Dunlap; and from conversations with him and from them—

Senator MORGAN. You have not named anybody else.

Mr. BIGELOW. No; I do not name—well, I have had conversations with Mr. William Barclay Parsons.

Senator MORGAN. Very good.

Mr. BIGELOW. I have had conversations—they were private conversations—with Mr. John R. Freeman, who is the consulting engineer of the Boston waterworks.

Senator MORGAN. You have already mentioned him.

Mr. BIGELOW. And I have had conversations with an engineer who has already been mentioned, Mr. Lundie.

Senator MORGAN. Mr. Lundie?

Mr. BIGELOW. Yes.

Senator MORGAN. Anybody else?

Mr. BIGELOW. I have met others whose names escape me at the time, because we have been in gatherings where there have been a number speaking. Those are perhaps the most eminent.

Senator MORGAN. Is that all—all that you know?

Mr. BIGELOW. That is all, sir.

Senator MORGAN. Have any of these engineers with whom you have had conversations stated to you that they were unwilling to go to the Isthmus to serve the Government, either because of the physical conditions existing there or because of the regimen of control by the Commissioners and chief engineers, or others?

Mr. BIGELOW. Mr. Senator, it would be very improper for me to quote their words, because I know their professional relations and it might embarrass them. But I gathered—if you care for this evidence—I gathered the impression that that was the reason they would not go themselves or would not advise anybody whose professional reputation was dear to go there.

Senator MORGAN. You have volunteered these statements to this committee to-day. They were not in your letter, and the committee have felt sufficient interest in the subject, in considering their own duties, to require of you a statement of the facts that have come to your knowledge that produce or tend to produce these results which you have already stated to the committee. It is quite as proper for you to give, in my judgment, what was said as it is for you to draw your conclusions and put them before the committee. Now, state what conversation you had with the editor of the Engineering Magazine. State the conversation.

Mr. BIGELOW. I have not brought a letter of his with me, but he told me, substantially, and has written to me, substantially, that what I wrote in the Independent was substantially sustained by what engineers, friends of his, had written to him.

Senator MORGAN. But you stated nothing in your communication to the Independent about engineers being influenced or controlled or in any wise prevented from going to the Isthmus to do work. You stated nothing of that sort in your letter.

Mr. BIGELOW. These gentlemen that I met, I have met since I came back from the Isthmus.

Senator MORGAN. Yes.

Mr. BIGELOW. And since that article was written.

Senator MORGAN. But the editor of the Engineering Magazine, according to your statement, has not said to you, in a letter or in writing, that he declined to go to the Isthmus to serve the Government, or would decline because of conditions that existed there.

Mr. BIGELOW. He did not say that himself; no.

Senator MORGAN. Yes.

Mr. BIGELOW. No.

Senator MORGAN. Has any one of these engineers said so to you?

Mr. BIGELOW. I did not wish to answer that question.

Senator MORGAN. You did not wish to answer it?

Mr. BIGELOW. No, sir; for the reason that when I have mentioned these two names, the only two names I have mentioned so far in that Independent article, those men were so completely covered with mud by Mr. Taft that I feel I am very sorry I ever mentioned their names; because they are both of them respectable men.

Senator MORGAN. You will mention their names only in reply to the demand of this committee.

Mr. BIGELOW. Yes; but if you wish me, I will read a letter from Mr. Tracy Robinson.

Senator MORGAN. No; I do not wish to hear that, and I do not suppose the committee does. Now, name another engineer with whom you have had conversation or correspondence.

Mr. BIGELOW. I would rather not.

Senator MORGAN. And state what he said in respect of his being unwilling to go to the Isthmus because of the conditions, physical or otherwise, that existed there.

Mr. BIGELOW. I will not mention the names of anybody whom I am likely to injure by mentioning them. I would rather suffer myself than introduce any name.

Senator MORGAN. You have mentioned some names. Have either of these gentlemen said to you or written to you, communicated to you, the declaration that they were unwilling to go into the service of the Government on the Isthmus because of physical or other conditions that existed there?

Mr. BIGELOW. I have no authority to quote either of those gentlemen.

Senator MORGAN. Do you mean that they have not done it; that they have not said it?

Mr. BIGELOW. I do not wish to quote either of those gentlemen.

Senator MORGAN. Do you mean to say that they have written you or communicated with you and that you decline to state it?

Mr. BIGELOW. I say I do not wish to repeat to you or to anybody else what was the conversation between two private people.

Senator MORGAN. And you decline, then, to state any conversation you had with them on these subjects?

Mr. BIGELOW. I decline to state any conversation for which I have not the authority of the person who gave me the information.

Senator MORGAN. I understand you; or any communication between you?

Mr. BIGELOW. I will furnish you with any communication I have in the way of letters from Mr. Tracy Robinson, who has already been mentioned, who knows Panama perfectly from forty years' residence there, and who has the respect and esteem of those people down there—a letter I received only yesterday, confirming what I have already published there on the 1st of December, and which is, of course, exactly counter to what Mr. Taft publishes in his official paper.

Senator MORGAN. Is that a confidential letter to you?

Mr. BIGELOW. I will quote the parts that do not appear to me to be confidential.

Senator MORGAN. You will make your selections from it?

Mr. BIGELOW. I will make my own selections, and leave it to you to draw Mr. Tracy Robinson—

Senator MORGAN. The letter itself contains confidences that you do not wish this committee to know about?

Mr. BIGELOW. The letter itself gives his opinion and the basis of his opinion in regard to Mr. O'Connell, who was sent to Jamaica to get laborers, as laborers were procured from Martinique for so-called "night work" on the Isthmus—

Senator MORGAN. That is an outside question. I am asking you entirely about the question of engaging in the service of the United States on account of physical or other conditions there.

Mr. BIGELOW. I am answering you why it would not be proper for me to quote certain parts of his letter; and I am willing to quote the parts that are of interest to you in solving the question of whether—

Senator MORGAN. You are, then, not willing to submit the letter to the committee, but you are willing to quote parts of it that you esteem to be nonconfidential?

Mr. BIGELOW. I am not willing to submit parts that would involve him.

Senator MORGAN. As to the other communications that you have received from Mr. Robinson besides that, proceed to state what they said to you.

Mr. BIGELOW. To whom do you refer?

Senator MORGAN. As to the other persons whom you have named with whom you have had conversations.

Senator HOPKINS. The eminent engineers.

Senator MORGAN. To the effect or tenor that they were unwilling to go there. Proceed, now, to state what they said to you.

Mr. BIGELOW. I am not aware that I have quoted any engineer that was not willing to go there. I am not aware that I have mentioned any engineer who was unwilling to go there or who gave me authority for quoting his language.

Senator MORGAN. I singularly misunderstood you if you did not say that you had had conversations or correspondence with other gentlemen or engineers.

Mr. BIGELOW. I have had private conversations, yes.

Senator MORGAN. I am talking about private conversations. Those are what I want to get at.

Mr. BIGELOW (continuing). With gentlemen whose conversation I am not at liberty to reproduce; but, as I have already mentioned, the tenor of it, as I gathered it, was that—

Senator HOPKINS. That is not the point. Mr. Bigelow is not answering your question, Senator.

Mr. BIGELOW. But, Senator, I am not an engineer.

Senator MORGAN. I did not ask you about your being an engineer.

Mr. BIGELOW. The men who know about this question are within call.

Senator MORGAN. Yes.

Mr. BIGELOW. And the fact that this editor of the Engineering Magazine, Mr. Dunlap, is willing to make such a statement and open his columns—

Senator MORGAN. Mr. Bigelow, you have mentioned the names of engineers with whom you say you have had conversations, which you say are private and confidential conversations, in respect of this matter that you have brought forward before this committee to-day—the

unwillingness of engineers to serve the Government at Panama because of physical or other conditions that existed there. You have named the men, and you have made that statement. Now, take either one of these names that you have mentioned, and state what that man said to you.

Mr. BIGELOW. Mr. Senator, I would rather withdraw the name that I first mentioned.

Senator MORGAN. You can not withdraw anything.

Mr. BIGELOW. Because I do not—

Senator MORGAN. You have sworn to what is in this record, and a man can not swear to a thing and then withdraw it.

Mr. BIGELOW. Well, I have committed an indiscretion for the first time in my life, then.

Senator MORGAN. I do not know about your indiscretions; that is a question for another tribunal, perhaps. But you have made these statements here this afternoon, giving several names. I now ask you for what these men or any one of them said to you on that subject.

Mr. BIGELOW. Mr. Senator, I have answered that question so often that I can only repeat it. I am not an engineer, and—

Senator MORGAN. No, no; not about your not being an engineer; I am not asking you about an engineering question. I am asking you a plain matter of fact.

Mr. BIGELOW. You are asking me to repeat private conversations.

Senator MORGAN. I am asking you what they have said to you in those private conversations on this subject. That is the question now.

Mr. BIGELOW. I will do so when I have their permission.

Senator MORGAN. And not before?

Mr. BIGELOW. Certainly not.

Senator MORGAN. Certainly not?

Mr. BIGELOW. I would prefer—

Senator MORGAN. Now, Mr. Bigelow, that brings the question up. The law of the land, which is here—and if you wish to have it read to you it will be read to you—requires you, as a witness before a Senate committee, to answer any question that the Senate committee puts to you, although it may violate a private confidence, or although it might incriminate you. The law requires it. And in the event that you refuse to do so, it is the duty of this committee to report this matter to the President of the Senate; it is his duty to certify the facts to the criminal jurisdiction in the District of Columbia, and to proceed with it in the courts. Now, do you wish any further explanation about the law of the situation?

Mr. BIGELOW. I will take your word on a point of law; I am only speaking of a point of ethics.

Senator MORGAN. It will be read to you, if you desire to know it. Now, you refuse to answer, without the consent of the men with whom you have had these conversations, a question as to what they said to you in respect of being averse to or objecting to or refusing to accept employment by the Government of the United States in the Isthmus on account of physical or other conditions? You refuse?

Mr. BIGELOW. Why, I have to refuse, of course.

Senator MORGAN. Without their consent?

Mr. BIGELOW. But I would like to appeal to the chairman on this matter. I was invited to make a statement. I have been trying

to make the statement, but I have been drawn aside on matters which are excessively important legally—

Senator MORGAN. I do not wish to discuss any matter with you, Mr. Bigelow. You are a witness before the committee, and you have not the privilege of discussing anything, if you will allow me to say so. We are trying to pursue an inquiry here that we think will bring out the truth, and nothing but the truth—the facts. That requires no discussion.

Mr. BIGELOW. Well, then, Mr. Senator, without discussing, you asked me to make a statement; you have taken it down partially, and cut it off and left it there in a broken form.

At the request of Senator Morgan, the stenographer read aloud the following question:

Now, you refuse to answer, without the consent of the men with whom you have had these conversations, a question as to what they said to you in respect of being averse to or objecting to or refusing to accept employment by the Government of the United States in the Isthmus on account of physical or other conditions? You refuse?

Senator MORGAN (after the reading by the stenographer). You do refuse?

Mr. BIGELOW. Oh, of course.

Senator MORGAN. Very good.

Senator HOPKINS. Mr. Bigelow, do you also refuse to give the names of any other eminent engineers who have had such talk with you, who refused to go to the Isthmus because of the physical conditions there, or any limitations that are placed upon the administration of the Zone?

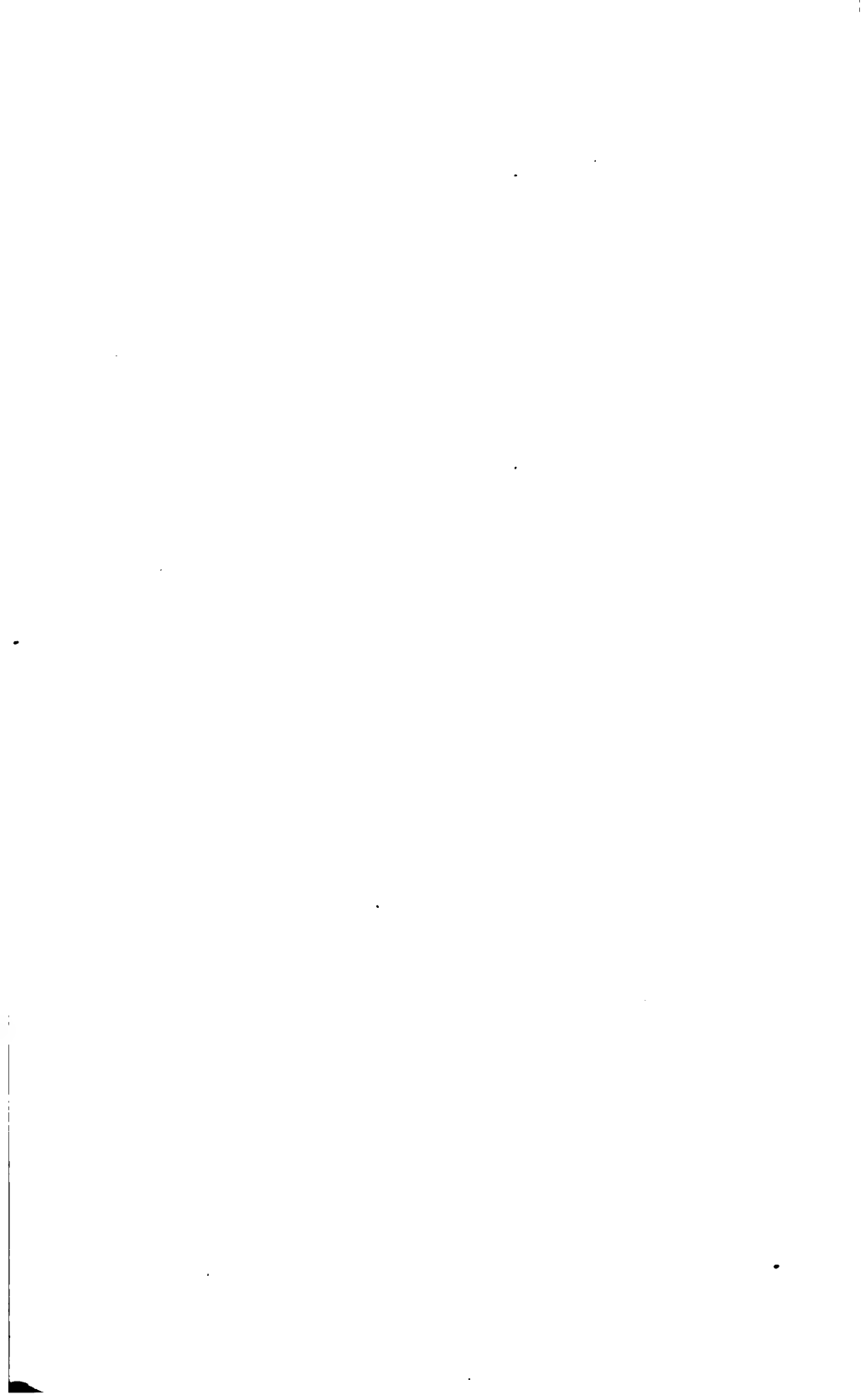
Mr. BIGELOW. I have no names of any who refused to me to go there, and I will not even say that either of these gentlemen refused. All I decline to do is to repeat the substance of private conversations. I was called here, as I understood it, to give my experiences down there.

Senator MORGAN. You were called here as a witness, to tell the truth. That was what you were called for.

Mr. BIGELOW. But these were things that happened up here.

Senator MORGAN. Mr. Chairman, I move that the committee room be cleared.

The motion was carried, and the committee went into executive session; after which an adjournment was taken until to-morrow, Friday, January 19, 1906, at 10.30 o'clock a. m.



## ISTHMIAN CANAL.

---

COMMITTEE ON INTEROCEANIC CANALS,  
UNITED STATES SENATE,  
*Washington, D. C., Friday, January 19, 1906.*

The committee met at 10.30 o'clock a. m. in executive session, at the conclusion of which a recess was taken until 2.30 o'clock p. m.

### AFTER RECESS.

At the expiration of the recess the committee resumed its session.

Present: Senators Millard (chairman), Kittredge, Hopkins, Ankeny, Morgan, Taliaferro, Gorman, and Simmons.

Present, also, Maj. Hugh J. Gallagher, U. S. Army.

### TESTIMONY OF MAJ. HUGH J. GALLAGHER, U. S. ARMY.

Major GALLAGHER was duly sworn, and testified as follows:

The CHAIRMAN. Major Gallagher, you are connected with the Army, I believe?

Major GALLAGHER. Yes, sir.

The CHAIRMAN. In what capacity?

Major GALLAGHER. As major, Commissary Department.

The CHAIRMAN. You have been in the service of the Isthmian Canal Commission, have you not?

Major GALLAGHER. Yes, sir; for the past year.

The CHAIRMAN. In what capacity have you been connected with it?

Major GALLAGHER. For the first four months, from February 1 until June 1, I was purchasing agent, and from June 1 until the present time I have been deputy general purchasing officer.

Senator SIMMONS. From June 1, 1905, do you mean?

Major GALLAGHER. Yes, sir; from June 1, 1905, until the present time.

The CHAIRMAN. What have been the duties of which you have had charge?

Major GALLAGHER. While I was purchasing agent, I had general charge of purchasing all materials as called for upon requisitions from the Isthmus. As deputy general purchasing agent, I have acted as assistant to the general purchasing officer, acting in his place during his absence, and doing whatever work he wished to assign me.

The CHAIRMAN. During that time have you been in Washington all the time?

Major GALLAGHER. Yes, sir.

The CHAIRMAN. You have not been to New York?



Major GALLAGHER. I have been in Washington most of the time. Occasionally I have had to take a trip to New York.

Senator GORMAN. Had not Major Gallagher better give, in his own way, a general description of the duties of that office?

The CHAIRMAN. I think so.

Senator GORMAN. Just give, in your own way, a description of the organization of the office, and a full statement of the scope of your duties.

Major GALLAGHER. In the beginning I was the first purchasing agent of the Commission, and was called upon to organize the purchasing department; and in doing so I followed as nearly as possible the methods that are in vogue in the different Departments of the Government; that is, we would receive a requisition from the Isthmus; the material called for in that requisition would be abstracted, advertisements would be gotten out and inserted in newspapers, and bids would be invited, to be opened at a certain time. When that time arrived, the bids would be opened, all of them would be abstracted, the awards made, and the orders placed for the material. There was also a vast amount of correspondence relative to the different classes of material; people all over the country wanted to know about getting these circular posters to enable them to bid, and asked questions about the kind of material that was wanted, and so on, where it was not clear in the specifications. That work was conducted in this office, and some of those purchases were made in the branch offices which were established in New York and New Orleans.

The CHAIRMAN. Are those the only branch offices you have?

Major GALLAGHER. Those were the only ones that we had where any purchases were made. There were and are now assistant purchasing agents in San Francisco and in Tacoma. They, however, make very few purchases; their duty being mainly to look after the inspection of material. There is a large quantity of lumber being purchased out in that region, and their duty is to look after the shipment and inspection of that lumber.

Senator HOPKINS. But who buys that lumber?

Major GALLAGHER. It is purchased in the office in Washington. That is, the bids are opened in Washington, and the awards made in Washington.

Senator HOPKINS. The award is made here, and then those men look over the lumber to see whether what is purchased is up to the standard?

Major GALLAGHER. In accordance with the specifications, they have charge of the inspection and shipment of it. It is their principal duty. The man at Tacoma, especially, has been given much of that work to do.

Senator HOPKINS. Yes. What other things besides lumber do you buy out on the Pacific coast?

Major GALLAGHER. At the present time there is very little besides lumber that I think of. We did make purchases of some canned goods and material of that kind some time ago, but recently there has been very little purchased on the Pacific coast except lumber.

Senator HOPKINS. What else has there been?

Major GALLAGHER. I do not think of anything, Senator.

Senator HOPKINS. What does the agent do at San Francisco? What is the necessity of keeping an agent there?

Major GALLAGHER. He is stationed there to look after the shipments of lumber that may be purchased right in that vicinity.

Senator HOPKINS. You get some of your lumber in that locality, then, do you?

Major GALLAGHER. There has been some redwood purchased around through there. The duties of that agent have not been very arduous.

Senator HOPKINS. Have they been sufficiently important to warrant the Commission in maintaining an agency there?

Major GALLAGHER. Yes, sir; though not exactly on account of the purchases. In the first place, the officer who is acting there is a regular army officer. He is Major Duvall, the depot quartermaster; and the principal duty that he has there is to distribute circulars. When we get out one of these poster circulars we send them to these different purchasing agents; and our advertisement contains an announcement that these posters may be obtained from the assistant purchasing agents in New York, New Orleans, San Francisco, and Tacoma; so that the people in those localities who wish to bid may obtain them from the agents without writing to Washington for them.

That has really been the principal work that the agent at San Francisco has been doing, and it was quite important that he should do it. I found that to be the case because we had difficulty in getting the circular posters to the people out there. There seemed to be some delay in some way or other, and some complaints were made about it. Since that agency has been established there has been very smooth sailing.

Senator HOPKINS. I beg pardon for interrupting.

The CHAIRMAN. I think probably we had better let the Major go on and make his statement, and then we will ask him questions as we go along. If there is anything additional, Major, will you please state it, in regard to the offices you have held in connection with the Panama Canal?

Major GALLAGHER. I have given a general outline of the duties of the office. Of course, the details are multitudinous.

The CHAIRMAN. Then the Senators may proceed to ask the Major any questions that may suggest themselves.

Senator HOPKINS. You have also stated that you had an agency at New Orleans?

Major GALLAGHER. Yes, sir.

Senator HOPKINS. What are the duties of the subagent there?

Major GALLAGHER. He makes a number of purchases. He has purchased considerable material there. He also distributes the circulars to prospective bidders in that locality who apply for them. He also looks after the shipment of materials. There is a great deal of material being shipped via New Orleans, and he looks after that part of the work.

Senator HOPKINS. What class of material do you secure at New Orleans?

Major GALLAGHER. There has been a great deal of lumber and piling purchased down in that vicinity, and some furniture; and some of the firms down there have sold us all kinds of material—hardware, paints, etc.

Senator HOPKINS. That is secured through your agency there, is it?

Major GALLAGHER. Some of it is secured through the agency there, but most of it through the agent here.

Senator HOPKINS. And does he act as inspector there after the contract is given out here, in Washington?

Major GALLAGHER. Yes; he acts as inspector in some cases, where we feel that he is qualified to do so. In other cases we have regular inspectors.

Senator HOPKINS. What is the name of your agent in New Orleans?

Major GALLAGHER. Mr. S. E. Redfern. He was chief clerk of the Walker Commission.

Senator HOPKINS. Is he a salaried man?

Major GALLAGHER. Yes, sir.

Senator HOPKINS. What salary is he paid?

Major GALLAGHER. I think his salary is \$2,000 a year.

Senator HOPKINS. And how long has he been located at New Orleans?

Major GALLAGHER. He has been there now about six month, I think, Senator.

Senator HOPKINS. Has the work that he has done, in your judgment, justified the establishing of an agency there at that salary?

Major GALLAGHER. Yes, sir; it was very well justified in every way, because without having such a man there we could not know what was going on; we could not make any purchases there of material right on the spot, and in every way his services have been necessary, in my opinion. I recommended the establishment of purchasing agencies at New York and New Orleans very shortly after I took charge of the office. The necessity for them was apparent.

Senator HOPKINS. How was the selection of this man at New Orleans brought—by reason of his qualifications or by reason of political "pull?"

Senator TALIAFERRO. You might ask him who recommended him.

Senator HOPKINS. Yes; I could do that.

Major GALLAGHER. He was appointed to this position by the chairman of the present Commission. He had been chief clerk under the old Commission. He was a capable, conscientious, good man. He had had experience in purchasing. He occupied the place that I felt heir to—that is, he was acting as purchasing agent of the Commission, although he was chief clerk.

Senator HOPKINS. Before you were appointed?

Major GALLAGHER. Before I was appointed purchasing agent.

Senator HOPKINS. So that he had had the experience?

Major GALLAGHER. He had had the experience, yes, sir; and I, for one, recommended him. I always spoke highly of him to Mr. Shonts, and considered him a very good man, indeed.

Senator HOPKINS. Whom did you select for New York?

Major GALLAGHER. Mr. Alfred Anderson.

Senator HOPKINS. Who is Mr. Anderson?

Major GALLAGHER. He was purchasing agent of the Panama Railroad Company, and when I took charge of the office here I found that he was making a considerable number of purchases for the Commission in New York City. That is, when materials were called for by cable, or anything of that kind, the matter would be sent over to him, and he would make the purchase on the spot and send the material down there. He was also at that time receiving extra compensation from the Commission for the extra work being done for the Commission, although he was an employee of the Panama Railroad Company.

Senator HOPKINS. Is he now connected in anyway with the Panama Railroad?

Major GALLAGHER. The general purchasing officer of the Commission at the present time is also the general purchasing officer of the Panama Railroad and Steamship Company, and he is a subordinate of his; and of course he is making great quantities of purchases for the Panama Railroad.

Senator HOPKINS. In your judgment, have the results justified the establishment of this agency in New York?

Major GALLAGHER. Yes, sir.

Senator HOPKINS. What class of goods do you get from the New York agency that you ship to Panama?

Major GALLAGHER. The principal purchases he is making at the present time are commissary supplies; but there have been a number of emergency calls for stores. They might be calls for something connected with sanitation. At the time of the yellow fever outbreak there were a number of such calls; and we simply sent them over to him to purchase and make shipment by the next steamer. In that way his services have been very valuable; but his present purchases are mainly commissary supplies for the Panama Railroad.

Senator HOPKINS. Who on the Isthmus makes requisitions upon you?

Major GALLAGHER. The requisitions are submitted by the chief of the bureau of materials and supplies, but are usually approved by the head of the Department. That is to say, if the material was wanted for the engineering department, the requisition would be approved by the chief engineer, Mr. Stevens. If it was wanted by the chief of the sanitary department, it would be approved by Colonel Gorgas. If it was wanted by the executive department, it would be approved by Governor Magoon; but the requisitions usually come from the office of the chief of the bureau of materials and supplies.

Senator HOPKINS. But they originate in the manner you have indicated, from the several departments?

Major GALLAGHER. Yes, sir.

Senator HOPKINS. That are on the Isthmus all the time?

Major GALLAGHER. They originate in those departments, yes, sir; but, I say, in order to keep everything straight, they go through this division of materials and supplies.

Senator HOPKINS. Yes. You speak about advertising. Do you make any purchases here without advertising?

Major GALLAGHER. At the present time?

Senator HOPKINS. I mean at any time.

Major GALLAGHER. There are some emergency purchases made, Senator, without advertising: yes, sir. They are very few in number, and are getting fewer all the time. In the case of those, however, there is always an opportunity for competition. There are two forms that are used. One is called the poster circular; that is used where you give a long-time notice, thirty days: there is an advertisement made extensively throughout the country. Then we have the little form that is called the circular proposal—that is considered, I believe, under a decision, an advertisement. It is posted in our office, and anyone has a right to bid under it.

Senator HOPKINS. So that in any of your purchases there is competition?

Major GALLAGHER. There is competition. There always was, and I think that is the case now. I am quite certain that the same system is followed—that is, there is public notice given, so that there can be competition.

Senator HOPKINS. Go on, now, and state to what extent these calls for material are circulated among the people, so that the public may know what demands are made by the Commission and what they can do to meet them.

Major GALLAGHER. In the case of these large purchases they are circulated throughout the country. That is, advertisements are made in all the larger cities, in prominent newspapers, so that everyone that asks for the circulars can get them. We do not make a habit of sending these poster circulars to anyone unless they are asked for. We have found it necessary to discontinue that, because that is what is called keeping a mailing list. There is such a great variety and such a quantity of material being purchased that to undertake to send out poster circulars to everyone that you knew to be a dealer would be an enormous task. There is probably nothing in the line of trade that is not being purchased; and if we should send the circulars to certain firms that are known and recognized to be big firms there is no reason why we should not send them to the smaller ones. That fact was realized, and it was determined to have no mailing list, and to send the circulars only to those who asked for them.

Senator HOPKINS. But those circulars are kept in such a way that whenever a request is made you send them on to the party making the request?

Major GALLAGHER. Oh, yes, sir. As I explained before, they are sent around to these assistant purchasing agents in other places, and are also kept here for ready distribution to anyone that wants them.

Senator HOPKINS. I will ask you if it is a fact that in making your purchases there has been pretty general competition?

Major GALLAGHER. Yes, sir; yes, sir—general competition. We try to follow the army rule.

Senator HOPKINS. So that you have received the benefit of whatever deductions would be made by means of competitive bids?

Major GALLAGHER. Yes, sir. I think there has been more general competition in this, Senator, than any other department of the Government; because they have purchasing agents in many places in other departments of the Government, and the circulars are sent out from those particular localities and bids are received in those localities, while ours go all over the country.

Senator HOPKINS. Suppose you want to make a purchase of five or ten thousand dollars' worth of materials to be sent there to the Isthmus, and you get twenty or thirty bids, what is the method by which you arrived at the successful bidder?

Major GALLAGHER. Those bids are all abstracted. In the first place, our poster circulars contain certain specifications. The bids are all carefully abstracted; then they are considered, and the lowest bid is taken. That is, if the party making the lowest bid offers to supply material that conforms to the specification, and is responsible, the award is made to him. That is the general rule.

Senator HOPKINS. What method have you of determining the responsibility of your bidders?

Major GALLAGHER. General knowledge of people's standing; they are known pretty well.

Senator HOPKINS. Do you require a bond from any of these parties to faithfully carry out their agreement where it takes the form of a contract for the construction of material, and several months are required to fill the order?

Major GALLAGHER. Yes, sir; when they submit their bids they are required to submit bonds to insure their acceptance of the award when made.

Senator HOPKINS. Yes.

Major GALLAGHER. And if the contract is entered into they are also required to give a bond.

Senator HOPKINS. Yes; then you follow in your purchases the same plan that is adopted in the Treasury Department and the other departments of the Government in dealing with the public?

Major GALLAGHER. Yes, sir. Our methods are Government methods, conforming to the law, excepting in some cases where, as I say, there may be a slight departure on account of emergency purchases, and I do not know that that is a departure. They make emergency purchases in the Army; I know that; and they are justified, I think, under the statute. My system—and Mr. Ross has been following the same plan—is to follow the law as strictly as possible.

Senator KITTREDGE. Who prepares the specifications?

Major GALLAGHER. The specifications are prepared at the Isthmus.

Senator KITTREDGE. By whom?

Major GALLAGHER. By the party submitting the requisition. That is, if it originated with the engineering department, the specifications would be prepared under the supervision of the chief engineer. Then he would submit them, as I say, to the chief of the division of material and supplies to be sent on; and it is the same in all cases. They are prepared in the department in which they originate.

Senator KITTREDGE. In what manner do you advertise?

Major GALLAGHER. In newspapers.

Senator KITTREDGE. Where?

Major GALLAGHER. Do you mean in what cities, sir?

Senator KITTREDGE. Yes; not all the cities, but some of them?

Major GALLAGHER. In New York, New Orleans, Chicago, St. Louis, Philadelphia, San Francisco—those are the principal cities. Advertisements are put in newspapers in those cities.

Senator KITTREDGE. Can you state the amount of material that has been purchased in open market?

Major GALLAGHER. I can not give it to you offhand, Senator; but a statement which showed that was prepared and, I think, handed to the chairman of the Appropriations Committee.

Senator KITTREDGE. Do you remember about the amount?

Major GALLAGHER. I should guess that it was probably in the neighborhood of \$250,000—something of that kind.

Senator KITTREDGE. For what period?

Major GALLAGHER. For the period from the beginning of purchases under the Commission (the old Commission as well) up to, perhaps, the 1st of October last.

Senator KITTREDGE. Covering a period of a year and a half?

Major GALLAGHER. About that; yes, sir.

Senator KITTREDGE. What was the general nature of the supplies procured in that manner?

Major GALLAGHER. They were usually supplies required in sanitation. Some were for the engineering department, but I think the biggest part of the purchases of that nature were made on requisitions received from the sanitary department.

Senator KITTREDGE. And of what character?

Major GALLAGHER. Well, I recall one case in which a large quantity of bronze wire mesh was purchased; also large quantities of fumigating powders.

Senator KITTREDGE. The wire mesh was for the construction of screens?

Major GALLAGHER. Yes, sir; I believe they made an effort there to screen all the buildings, to put screens around all of them, and they used very large quantities of that wire mesh.

Senator KITTREDGE. When was that purchase made?

Major GALLAGHER. That purchase was made about last summer. Some of the material was purchased in May and June of last year.

Senator KITTREDGE. About the time the yellow fever trouble was on?

Major GALLAGHER. Yes, sir; along about that time there were a good many calls for that material. It has all been listed.

Senator KITTREDGE. How long have you had experience in the Army in the purchasing of commissary department supplies?

Major GALLAGHER. I have been connected with the commissary department since the beginning of the Spanish war. I was appointed major of volunteers at the beginning of the Spanish war.

Senator KITTREDGE. Had you any experience in that capacity prior to that time?

Major GALLAGHER. Yes, sir; I had been post commissary at different military posts and regimental commissary when I started out with my regiment.

Senator KITTREDGE. What can you say about the prices at which the goods secured in open market were obtained? Were they obtained at fair and just prices?

Major GALLAGHER. I think so, Senator. As far as I know, the prices were all right. They were about the market prices.

Senator KITTREDGE. You say that the circular that you issued in securing goods in the open market has been construed to be an advertisement?

Major GALLAGHER. That is my impression; I think it has been—yes, sir.

Senator KITTREDGE. And you, of course, had the right in procuring goods purchased in that way to reject any and all proposals, had you not?

Major GALLAGHER. Yes, sir; in all those circulars the right was reserved to reject any and all proposals.

Senator KITTREDGE. And is the same true in the case of your regular advertisements?

Major GALLAGHER. Yes, sir. I have some of those here if you would like to see them; I have brought some samples of them.

Senator KITTREDGE. What do you say about the prices of material purchased under your eye under the latter form? Were they fair and just?

**Major GALLAGHER.** I think economy undoubtedly will result through competition; but I can not recall any case in which I think we were charged more than a fair price for anything purchased under an emergency.

**Senator KITTREDGE.** In what manner were these purchases to be delivered at the Isthmus?

**Major GALLAGHER.** In nearly all cases our circular called for bids on the articles delivered at Colon or La Boca—that is, Colon on the Atlantic side or La Boca on the Pacific side; so that the bidder, in submitting his proposal, included in his estimate what it would cost to deliver it there. In nearly all the cases of emergency purchases they were purchased for delivery either at New York or New Orleans for immediate shipment by the Canal Commission.

**Senator KITTREDGE.** And when you say they were delivered for shipment at either New York or New Orleans do you mean that those places were to be designated by the Commission, or at the option of the seller?

**Major GALLAGHER.** No; they were designated by the Commission, sir. If we would get an emergency requisition for supplies that we thought could be advantageously purchased in New Orleans we would send the requisition to the agent there, with instructions to purchase for delivery in New Orleans and make shipment himself. That would be to insure prompt work, so that he would go out and get the material and send it from that point. The same was the case at New York.

**Senator KITTREDGE.** Where goods were delivered at New Orleans for shipment to the Isthmus, in what manner did you secure their transfer or transportation to the Isthmus?

**Major GALLAGHER.** They were usually shipped by the line running from New Orleans to Colon, the United Fruit Company's line.

**Senator KITTREDGE.** The United Fruit Company's line?

**Major GALLAGHER.** Yes, sir.

**Senator KITTREDGE.** What sort of a contract, if any, have the Government or the Commission with that company?

**Major GALLAGHER.** I do not think they have any, Senator. I am not aware of any contract. They have an agreement, but I do not think it has ever taken the form of a formal contract.

**Senator KITTREDGE.** What is that agreement, as you recollect it?

**Major GALLAGHER.** The shipments are made at the regular rates, the same rates that they charge to ordinary shippers in similar cases.

**Senator HOPKINS.** For the same character of goods?

**Major GALLAGHER.** For the same character of goods.

**Senator KITTREDGE.** In what manner are the ships, owned by the Panama Railway Company and plying between New York and Colon, supplied with goods for transportation?

**Major GALLAGHER.** All the shipments from New York for the Commission are made by the Panama Railroad Company's steamers or chartered steamers. They have been obliged to charter steamers.

**Senator KITTREDGE.** I was going to ask about that.

**Major GALLAGHER.** They have been obliged to do that on occasions.

**Senator KITTREDGE.** You have not, then, been able to carry in those steamboats all the material or supplies presented at New York for shipment to the Isthmus?



Major GALLAGHER. No, sir. They have purchased two new steamers; and before that time they were not able to handle it at all. Since then they have not been able to handle it without chartering extra steamers.

Senator KITTREDGE. Do you know anything about the purchasing of those steamships?

Major GALLAGHER. No, sir. I know about it—I know that the purchase was made, but it was not done through the purchasing department.

Senator KITTREDGE. You had nothing to do with the purchase of those boats?

Major GALLAGHER. No, sir.

Senator KITTREDGE. By what line were the materials and supplies sent, that were shipped from New York, where they could not be carried by the boats owned by the Panama Railroad Company?

Major GALLAGHER. Usually by chartered steamers. I do not think we made any shipments on a regular line.

Senator KITTREDGE. What do you mean by "chartered steamers?"

Major GALLAGHER. They have, for instance, a great quantity of railway material, cars, or paving brick. They recently chartered some ships to carry brick. They could not handle it with their own steamships, so they chartered these special steamers to carry this material.

Senator KITTREDGE. Were they tramp steamers, or were they steamers belonging to some well-known line?

Major GALLAGHER. I think they belonged to some of the well-known lines, but I do not know which. I have not been intimately connected with that part of the work since I have been deputy general purchasing officer.

Senator KITTREDGE. Who has charge of that branch of the work?

Major GALLAGHER. Mr. Ross; he can tell you all about it.

Senator KITTREDGE. He is your superior?

Major GALLAGHER. Yes, sir; he is my superior.

Senator KITTREDGE. What can you say about the compensation paid for service of the character you have mentioned?

Major GALLAGHER. For carrying the material?

Senator KITTREDGE. Yes.

Major GALLAGHER. I think the compensation has been reasonable, so far as I know; but I am not familiar with the details of it. I would not like to try to answer that question, because I do not know, Senator.

Senator KITTREDGE. That matter has not been in your charge?

Major GALLAGHER. No, sir; it has not. I would like to have that understood clearly. The Panama Railroad Company undertakes to carry all this material.

Senator KITTREDGE. That is the point I am getting at.

Major GALLAGHER. The Commission does not charter these steamers. The Panama Railroad Company charts them to carry the material, and of course the cost is eventually charged against the Commission.

Senator KITTREDGE. In other words, all material and supplies that are destined for the Isthmus to be shipped at the port of New York are turned over to the Panama Railway Company?

Major GALLAGHER. Yes, sir.

Senator KITTREDGE. Under a contract or agreement with that company?

Major GALLAGHER. Yes, sir.

Senator KITTREDGE. For their transportation to the Isthmus?

Major GALLAGHER. Yes, sir.

Senator KITTREDGE. Have you any knowledge of that contract?

Major GALLAGHER. There has been an agreement that the Panama Railroad Company would carry all supplies at \$5 a ton. That was the understanding with the old Commission, and it has prevailed up to a recent date. It was found, however, that to continue to do so would probably entail a loss—that is, that they could not pay expenses. There are certain classes of material that they could not carry at \$5 a ton, because they take up so much space in the boat that it would entail a loss to do it; and therefore they are now going to adopt a schedule of charges on a different basis, instead of having a uniform rate.

Senator KITTREDGE. Is the contract to which you refer in writing or is it an oral agreement?

Major GALLAGHER. I think there is no formal agreement, but there are probably letters on file that will indicate that it is understood.

Senator KITTREDGE. I think that is all I wish to ask, for the present at any rate.

Senator GORMAN. Major, you say that you were assigned to this duty when?

Major GALLAGHER. Just about one year ago the order was issued directing me to report to the chairman of the Commission, and I entered on my duties as purchasing agent on the 1st of February, 1905—just about a year ago.

Senator GORMAN. That was under the present board, was it; or was it under the Walker board?

Major GALLAGHER. It was under the Walker Commission.

Senator GORMAN. Under the Walker board?

Major GALLAGHER. Yes, sir.

Senator GORMAN. Was your assignment there simply as an army officer, or was there an additional allowance of salary or expense account?

Major GALLAGHER. I received extra pay.

Senator GORMAN. To what extent?

Major GALLAGHER. I received from the old Commission enough to make my salary \$4,800 a year. My salary as a major was forty-one hundred and some. I think I received \$60 a month extra from the old Commission—\$720 a year.

Senator GORMAN. And that continues?

Major GALLAGHER. When I was appointed deputy general purchasing agent they increased my salary; they added to it.

Senator GORMAN. To what extent?

Major GALLAGHER. To the extent of making my present salary \$6,480 a year. They added sufficient to my salary as major to bring it up to its present amount.

Senator GORMAN. \$6,400, you say?

Major GALLAGHER. \$6,480; yes, sir.

Senator GORMAN. When you assumed duty I suppose you took an account, in a concrete form, of all the purchases that had been made up to that date, and all the material on hand?

Major GALLAGHER. Well, there was no accountability—there was no paper responsibility. That is, if I was directed to make a purchase

of material, and I ordered it and looked after the shipment of it, the responsibility ended, and there was no statement prepared or made up to that time. The work just continued right on from that period; and at the time I was relieved as general purchasing officer it just continued on as it was before.

Senator GORMAN. Who was your predecessor in this position?

Major GALLAGHER. Mr. Redfern. He was chief clerk of the Commission, and had been supervising the purchases; but there was no purchasing department established until I was appointed, and of course no regular purchasing agent. As I say, he was acting in that capacity, as chief clerk, supervising purchases.

Senator GORMAN. Is there any method by which we can ascertain the entire amount of different classes of materials, rails, engines, dredges, steam-shovels, and everything else connected with the construction of the canal proper, that was ordered or contracted for by the old Commission? Are the accounts kept in that way?

Major GALLAGHER. Yes, sir; that could be ascertained.

Senator GORMAN. From whom can we get the information?

Major GALLAGHER. You can obtain that from the office of the general purchasing officer. In the case of a great many of the purchases, the orders were placed by my successor for material for which I had advertised. The work was simply continuous, going right along. It would be somewhat difficult to prepare such a statement as you suggest, but we could very easily prepare a statement to show the total money value of the orders I had placed up to that time, and then the total money value of the orders which Mr. Ross has placed up to the present time. But there was a great deal of material being advertised for under me for which he afterwards placed the orders.

Senator GORMAN. Do these requisitions from the Isthmus come directly to your office now or to the chairman of the Commission?

Major GALLAGHER. They come, I think, directly to the office now.

Senator GORMAN. To your office?

Major GALLAGHER. I think so.

Senator GORMAN. Did they at the time you were serving under the old Commission?

Major GALLAGHER. No, sir; I used to receive them from the chairman of the Commission.

Senator GORMAN. When did the old Commission go out? I have forgotten the date; how long after your first connection with the Commission?

Major GALLAGHER. They went out about the 1st of April.

Senator GORMAN. After you entered upon your duty?

Major GALLAGHER. Yes, sir.

Senator GORMAN. During that time, from the time of your employment to the date of the expiration of the old Commission, what was the character of the complaints of failure to act upon requisitions for material on the Isthmus, made from the Isthmus? Was it very great?

Major GALLAGHER. I think there was considerable complaint that there was delay in receiving material. There was an accumulation of business there—there is no doubt about that. The gentleman who was acting, Mr. Redfern, was overwhelmed with work. He had a few clerks trying to do this work, and there was a great accumulation of these requisitions. I found requisitions there nearly four months old that had not been acted upon, and the principal work then, of course, was

to get these out, to get them advertised, and to try to get the material down there. During the month of April we opened bids on twenty-two days, showing the amount of material we were purchasing at that time.

Senator GORMAN. Then the fault was the fault of the organization, rather than the failure of the contractors to comply? Is that it? Is that what I understand you to say?

Major GALLAGHER. Well—

Senator GORMAN. According to the best of your recollection?

Major GALLAGHER. Senator, there is no doubt that the lack of a purchasing department was responsible for a good deal of the delay. If that department had been established earlier, say when the Commission began work, I do not think there would have been anything like the accumulation of requisitions that I found there. There could not have been, because they could have kept right up to date, with their work nicely organized and running along smoothly. But I do not wish to say that in the way of criticising or finding fault.

Senator GORMAN. Oh, no; we are asking you these questions, and we only want to get the facts. It is not your criticism; we simply want the facts as they exist.

Major GALLAGHER. Yes, sir.

Senator GORMAN. There has been a very great deal of criticism about the delay in all the departments there; and the general response from the officers in charge has been that it was the want of material that delayed them. We want to fix the place where that delay occurred, whether it was on the part of the contractors or because of the failure to have an organization here.

Major GALLAGHER. In my opinion the principal delay was due to the fact that there was no regularly organized purchasing department; although there has been some delay due to contractors not delivering material on time. But the principal delay was due to the fact that there was no regularly organized department to handle those requisitions as soon as they came in.

Senator GORMAN. Since then you have organized it pretty thoroughly, as I understand, have you?

Major GALLAGHER. Yes, sir; it is running pretty smoothly now.

Senator GORMAN. What is the extent of your corps there now? What does it amount to—the number of persons and the aggregate amount per annum, for instance, of their compensation?

Major GALLAGHER. I think we have in all about 18 or 20 clerks, perhaps, in that department, and the average compensation of the clerks would be about \$1,250 a year. That is the average compensation. Of course, some get more and some get less.

Senator GORMAN. And how many assistants have you, all told, located throughout the country as you have described?

Major GALLAGHER. There are four assistants—one in New York, one in New Orleans, one in San Francisco, and one in Tacoma.

Senator GORMAN. Did I understand you to say that the average compensation of these assistants in New York and New Orleans was \$6,000?

Major GALLAGHER. No, sir; the New Orleans man gets \$2,000.

Senator GORMAN. Two thousand dollars—I beg pardon.

Major GALLAGHER. The New York man gets \$3,000; the Tacoma man, I think, \$2,000, and the San Francisco man, on account of his

small duties, I think, has only an allowance of \$1,000 altogether for his office—the man and his clerks.

Senator GORMAN. Then, in addition to that, I understood you to say that you employed special inspectors in the case of lumber or other material that required some technical knowledge?

Major GALLAGHER. Yes, sir.

Senator GORMAN. How many of those do you employ regularly?

Major GALLAGHER. That would vary, Senator. A great deal of the work has usually been done through inspection bureaus, and it would depend upon the quantity of the material that was being looked after at the time.

Senator GORMAN. I see; just as the emergency required it.

Major GALLAGHER. When we place an order we usually have the inspection department, under the purchasing officer, look after the inspection. He appoints an agent. The head of the inspection department either appoints an agent to do the inspecting or does it himself.

Senator GORMAN. Since you have completed your organization, what character or number of complaints have you received from the engineer on the Isthmus, or Governor Magoon, or whoever else makes requisitions—the head of the department? How has it run since?

Major GALLAGHER. I think there have been very few complaints. I have not heard of any recently at all.

Senator GORMAN. None so far as your office is concerned?

Major GALLAGHER. None so far as our office is concerned.

Senator GORMAN. Now, Major, suppose a requisition comes from Mr. Stevens, for instance, for 100 cars or 1,000 cars to be sent to the Isthmus. Is that requisition made to the chairman of the Commission or to you?

Major GALLAGHER. In those larger cases the chairman of the Commission receives the requisitions. The very large requisitions of that kind usually come in the form of a letter to the chairman of the Commission, Senator; and he refers it to the general purchasing officer to make the purchase, provided he approves of the transaction.

Senator GORMAN. The smaller purchases now come directly to you?

Major GALLAGHER. They come directly to the office of the purchasing officer.

Senator GORMAN. And are opened by you?

Major GALLAGHER. They are opened in the office; yes, sir.

Senator GORMAN. When the requisition is made, what is the next step? Those, you say, are the larger ones. Now, take the case of a large purchase—the chairman of the Commission submits it to whom?

Major GALLAGHER. To the general purchasing officer.

Senator GORMAN. Not to the balance of the Commission who are here?

Major GALLAGHER. That part, of course, I am not familiar with. I do not know what he does with it, but I presume he acts upon those matters himself.

Senator GORMAN. So that when he approves it you advertise?

Major GALLAGHER. Yes, sir; it is advertised; yes, sir.

Senator GORMAN. And you give thirty days' notice, or whatever it is?

Major GALLAGHER. In some of those cases I think purchases have been made on rather shorter notice than that.

Senator GORMAN. Yes; but sufficient notice to give the dealers, the manufacturers, an opportunity to compete?

Major GALLAGHER. I presume so; but Mr. Ross is more familiar with those purchases. Some of those larger purchases have been made under his jurisdiction recently, and he could tell you about those things better than I could. He knows more about them. He is more familiar with them. He handled them altogether. Ever since I have been deputy general purchasing officer my duties have not been of such a nature as to make me familiar with all of those larger transactions; but I am pretty well satisfied that his object was to give everybody that wanted it an opportunity to bid on those things.

Senator GORMAN. Now, bids are required to be put in before a certain hour on a given day. Are they opened in public?

Major GALLAGHER. Yes, sir.

Senator GORMAN. Are they always opened in public?

Major GALLAGHER. They are here; yes, sir.

Senator GORMAN. And I understood you to say a moment ago that the awards are made to the lowest bidder?

Major GALLAGHER. Not in all cases; no, Senator, they are not.

Senator GORMAN. They are not?

Major GALLAGHER. They are in most cases. If the lowest bid conforms to the specifications, and the bidder is responsible, and everything on the bid is clear-cut, then the award goes to the lowest bidder. That is the usual case.

Senator GORMAN. Yes; but there are exceptions?

Major GALLAGHER. In some cases, where the lowest bidder offers something different from what was called for, the next lowest bidder is taken up, and if his bid is all right the award is made to him.

Senator GORMAN. That is, where the bids were not made in accordance with the specifications?

Major GALLAGHER. Yes, sir.

Senator GORMAN. But where he has complied with the specifications, and the usual bond accompanies his bid, have you always given the contract to the lowest bidder?

Major GALLAGHER. I think so, sir.

Senator GORMAN. Have you not, as a matter of fact, in some of these very large purchases, required the bidder to change his bid after the bid has been presented and opened in public?

Major GALLAGHER. No; I have not done so, sir, and I do not know that Mr. Ross has done that.

Senator GORMAN. I suppose it is Mr. Ross—I do not know his name. He is called what—general purchasing agent?

Major GALLAGHER. General purchasing agent.

Senator GORMAN. How long has he been general purchasing agent?

Major GALLAGHER. He has been there since the 1st of June.

Senator GORMAN. The 1st of June last?

Major GALLAGHER. Yes, sir.

Senator GORMAN. I notice that when the Secretary of War and Mr. Shonts were before a committee of this Senate, speaking of that gentleman—I take it it is the same man, the man who supervised these purchases—the Secretary of War stated:

They are bought on advertisement or otherwise. All this construction material is what has to be bought every day for every railroad system in the country; and, as I have stated, his experience has been in just that kind of work.

Then, Mr. Shonts himself says that in the case of this bid he describes the bidder was the lowest, and that this officer compelled him to alter his bid and saved the Government \$193,000. Do you know anything about that case?

Major GALLAGHER. No, sir; I do not. That was not under my jurisdiction.

Senator GORMAN. That was not under your department?

Major GALLAGHER. No, sir.

Senator GORMAN. Has there come under your knowledge any case where the Commission required the bid to be changed, and gave only one bidder an opportunity to change his bid?

Major GALLAGHER. No, sir; nothing of the kind that I recall has come under my jurisdiction. As I say, these big purchases were handled by Mr. Ross, and he was familiar with them. I am not.

Senator GORMAN. I see. That includes the purchase of 61 steam shovels, for instance, which is a large amount. Would that come under Mr. Ross and not under you?

Major GALLAGHER. Some of those orders were placed by me, but they were given to the lowest bidder. There was no change in bids. Any change in those bids by him I know nothing about.

Senator GORMAN. Do you know anything about the contract for the 120 locomotives?

Major GALLAGHER. No, sir; I am not familiar with the details of that transaction.

Senator GORMAN. That also came under Mr. Ross?

Major GALLAGHER. Yes, sir.

Senator GORMAN. And so, I suppose, with the 5,000 tons of steel rails?

Major GALLAGHER. Some of those rails were purchased while I was general purchasing agent. They were purchased through the Panama Railroad Company in New York. I had little to do with that purchase. I believe 2,500 tons were purchased before I came to the purchasing department, and an order was placed for 2,500 tons afterwards. That was done through the Panama Railroad Company officials; it was done by direction of the chairman of the Commission, Admiral Walker, and was approved by Secretary Taft. They thought that they could do better by making the purchase in that way—that they would save money by it.

Senator GORMAN. So that that did not come directly under your control?

Major GALLAGHER. No, sir; I handled some of the correspondence relating to it.

Senator GORMAN. Do you remember whether there were any bids from foreign rails in that case at a less price than they were offered for here?

Major GALLAGHER. No, Senator; I never heard anything about that. I never knew anything about that.

Senator GORMAN. The Secretary of War, as you remember, has made a statement or manifesto to the effect that we would purchase that class of articles, or any articles, wherever we could purchase them cheapest.

Major GALLAGHER. Yes, sir.

Senator GORMAN. No bid of a foreign company has come to your knowledge?

Major GALLAGHER. Not to my knowledge, for steel.

Senator GORMAN. For anything else?

Major GALLAGHER. Yes, sir; we have had bids for foreign material.

Senator GORMAN. What, for instance?

Major GALLAGHER. We have had bids for some lead—pig lead—that was furnished from abroad, from England. We have also had some bids for cement.

Senator GORMAN. Was the bid for this lead accepted?

Major GALLAGHER. Yes, sir; it was an American firm that submitted the bid.

Senator GORMAN. This was pig lead from a foreign country?

Major GALLAGHER. A foreign product; yes, sir.

Senator GORMAN. Was it purchased from the lowest bidder?

Major GALLAGHER. The lowest bidder; yes, sir.

Senator GORMAN. How much lower than the American bidders?

Major GALLAGHER. I think, if I recollect right, it was about two thousand or three thousand dollars lower than the American bids.

Senator GORMAN. What did the purchase amount to in dollars?

Major GALLAGHER. I think it was \$8,000.

Senator GORMAN. Eight thousand dollars?

Major GALLAGHER. I do not remember the exact amount, but I think the bid of the next lowest bidder was \$11,000, Senator, trusting to my memory in the matter.

Senator GORMAN. Yes, of course. What was the next foreign article purchased?

Major GALLAGHER. There was some cement purchased.

Senator GORMAN. Cement?

Major GALLAGHER. Cement, I think, was purchased. I think that order was placed by Mr. Ross. That was subsequent. That order for the lead was placed by me. The order for the cement was placed by Mr. Ross. I think they are getting foreign cement there now.

Senator GORMAN. Portland cement?

Major GALLAGHER. Foreign Portland cement; yes, sir.

Senator GORMAN. Portland cement?

Major GALLAGHER. Yes, sir.

Senator GORMAN. Cheaper than you can buy it in this country?

Major GALLAGHER. Yes, sir; it is delivered there cheaper.

Senator GORMAN. Is it cheaper by the barrel, or cheaper because it is a better article?

Major GALLAGHER. It is high-grade cement, and is cheaper delivered there by the barrel.

Senator GORMAN. To what extent has that gone, so far as you know?

Major GALLAGHER. I think there have probably been between ten and fifteen thousand barrels, perhaps more, purchased.

Senator GORMAN. That was done by open bids?

Major GALLAGHER. Yes, sir; it was done by open proposals under advertisements inviting bids. The firms submitting the bids are usually American firms, but they offer a certain kind of cement, and I do not know that we particularly go into the question of where it is coming from unless they call attention to it especially.

Senator GORMAN. Do you advertise on the other side of the water, in England or France?



Major GALLAGHER. No, sir; I do not think any advertisements have ever been placed there; but, as I say, these agents of these foreign firms see the advertisements and submit their proposals.

Senator GORMAN. Yes; but you have not made an effort to get material by advertising over there?

Major GALLAGHER. No, sir.

Senator GORMAN. You rely upon their information from this side?

Major GALLAGHER. Yes, sir. There was one purchase over there that I recall that had to be made, for some repairs for a dredge, an elevator dredge, that was constructed in Scotland; they wanted some buckets for that dredge, and it was necessary to make the purchase there in order to get the right kind.

Senator GORMAN. That was one of the old French dredges?

Major GALLAGHER. That was one of the dredges of Scotch construction.

Senator GORMAN. Purchased by the old company, I mean?

Major GALLAGHER. Yes, sir; by the old company.

Senator GORMAN. How as to drugs? I have seen a statement that drugs have been purchased for the sanitary department when you could get them cheaper down there. What of that?

Major GALLAGHER. The drugs that are purchased in this country are all purchased through the Medical Department of the Army. They are advertised for, and purchases are made for the Commission just exactly as they are made for the Medical Department, under the jurisdiction of Colonel Turrill, the purchasing agent of the Medical Department in New York City. As to the purchases made on the Isthmus, I am not familiar with those.

Senator GORMAN. I understand you to say, Major, that they now have consolidated all the purchasing boards of the railroad under the Canal Commission. It is all one now?

Major GALLAGHER. Yes, sir; they are under one head. Of course the accounts and everything are kept separate.

Senator GORMAN. Yes; but there is one head who purchases both for the Commission and for the railroad?

Major GALLAGHER. Yes, sir.

Senator GORMAN. What special check has the Commission on those accounts? Is there a separate statement made from day to day for the purchases and statements on account of the Canal Commission, and sent to this office in Washington?

Major GALLAGHER. In the case of all purchases that are made by the Commission agents in New York or elsewhere, as soon as they are completed all the papers are sent to Washington for filing. As soon as the transaction is completed the records are kept here.

Senator GORMAN. You keep the records here?

Major GALLAGHER. Yes, sir. As soon as the transaction is entirely completed all the papers come in here pertaining to the canal purchases. Those pertaining to the Panama Railroad Company in New York are kept in their office there. So that under that system, if it is adhered to, there is very little likelihood of any difficulty arising.

Senator GORMAN. Do you consider, as a man of experience, that you can keep properly, without confusion, two accounts for two organizations with the same head?

Major GALLAGHER. I would prefer, myself, to have them entirely separate. Of course it might be done, but for systematic work I

would prefer to keep the business of the Commission entirely separate from that of the Panama Railroad. I would prefer to conduct them on an entirely different, independent basis. That would be my idea of the most systematic, best work. But the gentlemen at the head of affairs, who look at the matter from a different standpoint, might take a different view. That would be my view of it.

Senator HOPKINS. The accounts are now kept separate, you say?

Major GALLAGHER. Yes, sir, they are; but as I understood the Senator, he wished me to give an opinion as to whether I thought that better results would be obtained by keeping them separate.

Senator HOPKINS. By consolidating?

Major GALLAGHER. No, sir; by having them separate; by having them not run by the same men.

Senator GORMAN. That is precisely my question, Major. I ask you, as an expert and a careful business man, whether, if you were running your own affairs, you would permit a system by which both accounts were kept by the same officer?

Major GALLAGHER. I would prefer to have the accounts under different heads and to have the work done by different people. I think that there would be better, more systematic results, and no danger of entanglement or complications of any kind.

Senator GORMAN. Now, of the purchases that were made on account of the railroad you have had no account here in Washington, have you?

Major GALLAGHER. No, sir; no, sir. Those accounts are kept in New York City, in the Panama Railroad Company's office.

Senator GORMAN. By this Mr. Ross? I mean under his supervision.

Major GALLAGHER. Under his supervision, by the purchasing officer there.

Senator GORMAN. Yes; so that you have no knowledge of that?

Major GALLAGHER. No, sir; I have no knowledge of that at all. To come back to that question, I separated that agency when I took charge of the office. I found that the purchasing agent of the Panama Canal Commission was purchasing agent for the railroad, and I separated the two. I recommended Mr. Anderson for appointment as purchasing agent of the Canal Commission, and they appointed another man as purchasing agent for the Panama Railroad, to avoid any entanglement. The accounts are kept now, I think, separate. That is, there is a different force at work. They may all work satisfactorily, but as a general proposition I would prefer to keep them separate.

Senator GORMAN. That is a very clear statement. Now, in the purchases for the Canal Commission, when you first entered upon your duty, did it embrace purchases for the ordinary supplies of the officers and laborers and others connected with the construction work on the Isthmus?

Major GALLAGHER. Yes, sir; all supplies.

Senator GORMAN. That was during the time of Mr. Wallace's incumbency as the chief engineer?

Major GALLAGHER. Yes, sir.

Senator GORMAN. You purchased the supplies for them at that time?

Major GALLAGHER. Do you mean—

Senator GORMAN. I mean now the living supplies.

Major GALLAGHER. The commissary supplies?

Senator GORMAN. The commissary supplies.

Major GALLAGHER. Some were purchased by the Canal Commission for a time. A number of requisitions were submitted, the intention being to make those purchases by the Canal Commission. That was afterwards changed, and it went back to the Panama Railroad Company.

Senator GORMAN. When was that change made?

Major GALLAGHER. That change was made about the time of the change in the Commission.

Senator GORMAN. So that all commissary supplies are purchased by the railroad?

Major GALLAGHER. They are purchased by the railroad now.

Senator GORMAN. You have nothing to do with it in Washington?

Major GALLAGHER. No, sir; except that Mr. Ross supervises them.

Senator GORMAN. And the requisitions do not come here at all?

Major GALLAGHER. They do now.

Senator GORMAN. They do now?

Major GALLAGHER. Mr. Ross has recently given instructions that all requisitions for the commissary supplies should come to him.

Senator GORMAN. Mr. Ross is here in Washington, is he?

Major GALLAGHER. Yes, sir.

Senator GORMAN. And do the requisitions go before the president of the Commission, Mr. Shonts, when they come in?

Major GALLAGHER. I do not think they all do, Senator. There may be some special cases that it may be necessary to consult him about. An emergency purchase always goes to the chairman of the Commission for his approval before the purchase is made.

Senator GORMAN. That is required under the general order, where the President suspended the law?

Major GALLAGHER. Yes, sir. The chairman of the Commission approves the transaction.

Senator GORMAN. What is the limit under the President's order to each purchase of emergency supplies; do you know?

Major GALLAGHER. I think all purchases over \$10,000 must be made by advertisement. Under \$10,000 they *will* be made by advertisement, excepting in cases of emergency; and in the case of purchases under \$1,000 a good deal of freedom is given. I do not think that it would be violating the laws and instructions if purchases under \$1,000 were made without advertising; but very few are so made.

Senator GORMAN. Major, coming back to a question Senator Hopkins asked you a moment ago with regard to these emergency purchases, you have stated that you had a little slip, or card, or whatever it was—

Major GALLAGHER. A circular.

Senator GORMAN. A circular, which you had filed in the office, and which anybody could get, but that you did not send it to dealers. For instance, if you wanted drugs you did not send it to prominent dealers in the cities here and give them an opportunity to bid, but they had to come to your office if they wanted to ascertain what was being bought?

Major GALLAGHER. Yes, sir; that was my rule.

Senator GORMAN. That was a rule that you made, was it?

Major GALLAGHER. Yes, sir; that was my general rule.

Senator GORMAN. Is not that a reversal of all commercial transactions in ordinary business?

Major GALLAGHER. That rule might probably have been departed from in the case of small purchases—certain proposals. I think, however, that the rule was adhered to, and that they were sent only to people that asked for them. In fact, I made no purchases that I recall without advertising, except emergency purchases. I not only had these circular proposals, but I advertised in newspapers for them and required the assistant purchasing agents in other places to do the same. That was my system.

Senator GORMAN. But, Major, in all business transactions that are conducted by all large concerns, railroads, and so on—I have been connected with some institutions of that sort myself—I have never known the rule to be departed from that when you are going to make a purchase, if you want to get the material at a fair price, you let the principal bidders, the principal manufacturers and dealers, know what you want by a circular or a card.

Major GALLAGHER. Yes, sir—well, another reason that they had for departing from that rule was on account of the vast variety of material and the vast number of purchases being made. If we sent these poster circulars to certain men that we knew were dealers in the articles needed, there are innumerable others throughout the country who might ask why they did not get them.

Senator GORMAN. Yes.

Major GALLAGHER. And they did, I think, at first—they wanted to know if they could not get these circular proposals sent to them; and we simply had to stop it. I think in the beginning they had a big mailing list, and I really intended to keep a mailing list; but I found it would be so expensive, it would require a big force of clerks simply to mail out these circulars to the people. If you sent them to the big firms in New York or Chicago or St. Louis there would be, perhaps, smaller firms in Kansas City or Denver or somewhere else that would be just as much entitled to them, and could properly complain that they did not get a chance to bid.

Senator GORMAN. Yes; there is that objection to it; but at the same time—

Major GALLAGHER. That was the reason we tried to give as little cause for any complaint as possible. We did extensive advertising, and everybody that asked for the circulars could get them.

Senator GORMAN. But is there not greater cause for complaint when you know that a firm could not get the circular unless they had an agent in Washington, or somebody who was familiar with the wants of the Commission who could ascertain that fact here and then communicate it to them?

Major GALLAGHER. Senator, these advertisements were made so extensively that there was no reason—

Senator GORMAN. No; but I am talking now about the emergency purchases.

Major GALLAGHER. Oh, these emergency purchases?

Senator GORMAN. I am confining my questions to those alone.

Major GALLAGHER. Well, it was in pursuance of the same general policy; it was for the same reasons that I gave you with reference to the bigger purchases that I followed the rule for the advertising for the smaller ones, as to circular proposals. Mr. Ross, I think, departed from that. I think they have been sending them to people.

Senator GORMAN. Yes; so I have understood.

Senator HOPKINS. How would anybody know it was an emergency?

Major GALLAGHER. His policy may be the best.

Senator GORMAN. I asked the Major how anybody could know about this outside of a firm who had an agent here in Washington that was visiting the office of the purchasing agent, or—probably I ought not to assume that—who had some communication from people who had knowledge of it connected with the work, which would give great advantage to whoever happened to be favored?

Major GALLAGHER. I can only tell you my policy that I pursued in all these poster circulars, I advertised in New York or in Washington when the purchase was made here in Washington, and also in Philadelphia and Baltimore.

Senator GORMAN. Yes, sir.

Major GALLAGHER. When small purchases were made in New York they advertised there, and also, I think, they advertised in Boston; and when they were made in New Orleans they advertised in New Orleans and St. Louis, and I think, also in Chicago. That was my plan, my system.

Senator GORMAN. And that was approved by the Commission?

Major GALLAGHER. It was approved by the old Commission; yes, sir.

Senator GORMAN. By the old Commission?

Major GALLAGHER. Yes, sir; and the instructions were given to these purchasing agents that they must advertise in all cases except those of emergency. Since Mr. Ross has come into the office I think there has been a change in that policy—that is, as to the advertisements.

Senator GORMAN. Yes; but Mr. Ross had nothing to do with the withdrawal of this custom of yours of sending these circulars around for the mere emergency cases? That was done before Mr. Ross had anything to do with it, as I understand.

Major GALLAGHER. The matter of advertising?

Senator GORMAN. No; when you did not advertise. I refer to these circulars that you had formerly sent to various dealers.

Major GALLAGHER. I advertised the circulars generally.

Senator GORMAN. You do advertise them?

Major GALLAGHER. I did; I do not think it is done in all cases now. I did, I think, in all cases; I think I advertised them when I made purchases here in Washington or when they were made by the sub-agencies; but Mr. Ross, I think, has changed that policy somewhat. I think he considers the circular as an advertisement, and it may be that he mails them to people, though just how extensive the change has been I could not say. But my policy was to advertise all those things excepting in the case of a purely emergency purchase, where a cablegram would come for something; then I would get authority from the chairman of the Commission to make a purchase in open market without advertising, and we would make it.

Senator GORMAN. Have you not had a great many complaints from dealers about changing the rule?

Major GALLAGHER. No, sir; I think not.

Senator GORMAN. Have there not been a great many complaints filed in person and other protests against it from dealers?

Major GALLAGHER. Against the change of policy?

Senator GORMAN. Yes.

Major GALLAGHER. No, Senator; there have not been to my knowledge.

Senator GORMAN. Would they come to you or would they go to the chairman of the board?

Major GALLAGHER. Complaints of that kind usually go to the chairman of the Commission and to Mr. Ross.

Senator GORMAN. I see.

Major GALLAGHER. I think the present system is working satisfactorily. It may be that I advertised when it was not necessary to do it; that it would have been better to send the circulars out; but I considered that that was the best thing to do, and it was approved by the former Commission, and they adopted that rule and followed it.

Senator GORMAN. I have nothing further.

Senator MORGAN. I want to know, Major, first of all, who is the controlling man in the department to which you belong?

Major GALLAGHER. Mr. D. W. Ross.

Senator MORGAN. Where are his headquarters?

Major GALLAGHER. In Washington.

Senator MORGAN. Where are your headquarters?

Major GALLAGHER. In Washington.

Senator MORGAN. The superintending of the purchasing department, then, originates here? It is all here?

Major GALLAGHER. Yes, sir.

Senator MORGAN. And you have subagents in various large places?

Major GALLAGHER. Yes, sir.

Senator MORGAN. In New York and all around the coast?

Major GALLAGHER. In New York, New Orleans, San Francisco and Tacoma, Wash.

Senator MORGAN. Have you any subordinates in this great central part of America up here, where Chicago and Cleveland and Cincinnati and those other great towns are situated?

Major GALLAGHER. No, sir; we have no assistant purchasing agent there. They have in Chicago the services of the depot quartermaster there for the distribution of poster circulars.

Senator MORGAN. Would it not be more advantageous, if not cheaper, for the Government of the United States to purchase the main, substantial supplies for the work of the canal at points of origin or of concentration in these great centers that I speak of rather than on the coast to which they have been shipped by producers?

Major GALLAGHER. A great many of these big purchases have been made from people in the interior, Senator. Many of them are made from people in cities like Chicago and others.

Senator MORGAN. But although you make great purchases in the interior, you have no established posts there?

Major GALLAGHER. No, sir.

Senator MORGAN. And no subordinate officers to look after the purchases?

Major GALLAGHER. No, sir.

Senator MORGAN. Do you not think it would be a great improvement in the running of this business if you had your subordinate officers located in these great cities, where the market, we will call it, of these productions, is found?

Major GALLAGHER. I can not say that I can see any particular advantage there would be in having one, because Washington is readily

accessible. We can send our agents and our inspectors to these places, and we do.

Senator MORGAN. Take Chicago for a point of illustration: If a purchase was made in Chicago you would of course estimate the transit to the Isthmus as being a part of the cost?

Major GALLAGHER. Yes, sir.

Senator MORGAN. The purchase being made in Chicago, the contractor, the man who was to make the supplies, might be able to furnish the material at Colon cheaper through New Orleans than he could through New York?

Major GALLAGHER. In that case they all have a chance to bid, and they include the cost of transportation in their proposals.

Senator MORGAN. But if you buy in New York, if you have your establishment in New York or in any other of the Atlantic coast cities, or on the Pacific coast, do you not naturally and necessarily give the preference to the merchant or the dealer who has accumulated his supplies at these seaports rather than to the man in Chicago?

Major GALLAGHER. That is undoubtedly true, Senator; that is undoubtedly true.

Senator MORGAN. Is not that a disadvantage to the Government?

Major GALLAGHER. For the smaller purchases; but in the large, great purchases we give everybody in the country a chance. Everybody has a chance now.

Senator MORGAN. I take it that you use a great deal of coal at the Isthmus?

Major GALLAGHER. Yes, sir.

Senator MORGAN. A great deal—a great amount?

Major GALLAGHER. Yes, sir.

Senator MORGAN. Have you any estimate of the amount that would be used, for instance, annually, or for a period of six months, or even one month?

Major GALLAGHER. The purchases of coal have been made by the Panama Railroad Company heretofore upon requisitions that they submit, and they sell it to the Commission.

Senator MORGAN. Does the Panama Railroad Company buy coal for all purposes on the Isthmus?

Major GALLAGHER. Yes, sir.

Senator MORGAN. And the Canal Commission buys from the railroad company?

Major GALLAGHER. Yes, sir.

Senator MORGAN. Is not that a very inconvenient distribution of facilities?

Major GALLAGHER. I think, Senator, that as it has worked so far it has been all right, because the facilities for caring for coal at the Isthmus are under the Panama Railroad Company. They have their dumping grounds; they have their wharfs for coal, and everything to handle it. I do not know exactly what the conditions are down there at the present time, but—

Senator MORGAN. You think that it has done very well up to date, do you?

Major GALLAGHER. It has worked very well up to date. I think it is the best system they could have had.

Senator MORGAN. Whether it will work well in the future or not depends upon the sort of people that are working these machines?

Major GALLAGHER. Yes, sir; it will depend on the facilities they have for unloading down there and handling and keeping it separate.

Senator MORGAN. It is better, though, to have the purchase of coal, for instance, under one department, if I understand you?

Major GALLAGHER. Up to the present time that has worked very well.

Senator MORGAN. I know; but it would be better, a better plan? That is what I am talking about.

Major GALLAGHER. Yes.

Senator MORGAN. It would be a better plan to have the purchase of coal—take that item—under the control of one department, one purchasing agent?

Major GALLAGHER. Yes.

Senator MORGAN. That is better?

Major GALLAGHER. Yes, sir; I think that would be a good arrangement for that particular thing.

Senator MORGAN. From what ports, chiefly, do you get the coal that is consumed in Colon?

Major GALLAGHER. We have been using the Pocahontas coal.

Senator MORGAN. That comes from Baltimore?

Major GALLAGHER. Yes, sir; I think so.

Senator MORGAN. You make the contracts for coal from West Virginia?

Major GALLAGHER. Yes, sir; it seems to give the best satisfaction.

Senator MORGAN. In what respect?

Major GALLAGHER. In all respects.

Senator MORGAN. Is it better coal?

Major GALLAGHER. It is better coal; it seems to have been the best suited for that purpose.

Senator MORGAN. Have any tests been made?

Major GALLAGHER. They sent some coal down there of a different quality, and it was tested there as well as they could do it with their inadequate means; and the results were not satisfactory. They so reported.

Senator MORGAN. Have you ever examined the Navy tests about coal, steam-generating coal?

Major GALLAGHER. I have looked over them in a general way, but I have never examined them carefully. I did not make any of these purchases of coal.

Senator MORGAN. You have not made any purchases of coal?

Major GALLAGHER. No, sir; we have not.

Senator MORGAN. That has been done entirely by the railroad?

Major GALLAGHER. That has been done entirely by the railroad.

Senator MORGAN. You do not know whether they have made examinations of the naval tests of coal?

Major GALLAGHER. I do not know, Senator, whether they have or not.

Senator MORGAN. Are you aware of the fact that the Government has caused official tests to be made of all the steam-generating coals that are delivered upon the coast?

Major GALLAGHER. Yes, sir; I know that.

Senator MORGAN. Would not that be a fair guide as to the quality of the coal?



Major GALLAGHER. It should be; I think it would be a very fair guide; yes, sir.

Senator MORGAN. If this matter was left to the railway company, without guidance or control by the Canal Commission—as I understand, you have no assurance that they have ever examined these official returns?

Major GALLAGHER. I do not know, Senator, whether they did or not.

Senator MORGAN. Would you not think that after the Navy Department had gone to great expense and trouble in having chemical and practical and experimental tests made of the various steam-generating coals on all the coasts of the United States, those tables ought to be consulted in the purchase of coal?

Major GALLAGHER. They undoubtedly should be for all purchases being made for the Government.

Senator MORGAN. Yes.

Major GALLAGHER. And I think they would be. Probably if we were making the purchases of coal by the Commission for the Commission we would examine those tables.

Senator MORGAN. You speak of Pocahontas coal. That is a designation of coal that is found in Virginia. You do not know, I suppose, whether or not there are just as good coals in West Virginia that go down the Ohio and Mississippi rivers as come from Baltimore, in part by rail and in part by water?

Major GALLAGHER. No; from personal knowledge, Senator, I do not know whether there are or not.

Senator MORGAN. You have never made it any part of your business as purchasing agent for the Canal Company to ascertain where the best advantages were for the obtaining of coal at all?

Major GALLAGHER. No, sir; I was never required to do that, as we made no purchases.

Senator MORGAN. I brought this matter to your attention because I was inspired by the hope that the different kinds of coal produced in the different States of the American Union, delivered at the different ports, will after a while have some consideration in regard to this enormous expenditure. I want to ask you now whether there is any great consumption of iron on the Isthmus?

Major GALLAGHER. There has been considerable iron ordered.

Senator MORGAN. Where is that bought?

Major GALLAGHER. A good deal of it is bought from the South.

Senator MORGAN. At what point?

Major GALLAGHER. I think we have placed orders for some southern iron in New Orleans.

Senator MORGAN. Is any of it bought on the eastern coast?

Major GALLAGHER. Yes, sir; there has been some bought on the eastern coast; but my impression is that the largest order placed for iron has been in the South.

Senator MORGAN. That was because it has the best iron and the cheapest?

Major GALLAGHER. It was because it was the cheapest, the lowest bid.

Senator MORGAN. And the same thing would result in regard to coal if everybody had liberty to make fair contracts. Have you any purchasing agencies or subagencies anywhere in any foreign country?

Major GALLAGHER. No, sir.

Senator MORGAN. Why not?

Major GALLAGHER. We thought we had agencies sufficient to do the work in this country; and I do not think the necessity for a purchasing agent in a foreign country has appeared.

Senator MORGAN. Taking off the tariff duties, the foreign countries can undersell us in a great many of the materials that are used on the canal, can they not?

Major GALLAGHER. Unquestionably they can.

Senator MORGAN. Why not buy them in that way, then? The Government does not have to pay any duties.

Major GALLAGHER. Well, we would like to do the business in this country. We can get at it easier. We have everything that is wanted down there.

Senator MORGAN. And not where you can buy it cheapest? Your idea is to make the people who have to put up the money to support this canal pay American prices when you can get the same material at much less rates abroad, having no duty to pay? That is the idea, is it?

Major GALLAGHER. I do not think that that is the idea of the Government, Senator, because they have placed orders for foreign material. But I do not think the idea of having a purchasing agency abroad has occurred to anyone. Nearly all the big firms in Europe have agents in New York and other places, and they have submitted bids for foreign material; and some orders have been placed. Now, it might result in economy if there was an agency established, say, in London, or one in Paris, where they could advertise; but it would be a long distance from home, or from where we are doing this work, and I do not think that it has been the policy to make purchases for the Government under any conditions in that way.

Senator MORGAN. I will take an illustration of my proposition: Here are negroes in Jamaica and Martinique and through that part of the country.

Major GALLAGHER. Yes, sir.

Senator MORGAN. We call them negroes, and they are; they belong to the same family as our negroes here. When you can get negro labor of equal value and reliability would you not, in conducting the canal, get the cheapest labor you could, of the same quality?

Major GALLAGHER. The cheapest or the best? I would get the cheapest of the same quality, Senator; yes, sir.

Senator MORGAN. You do not hesitate to go to Martinique and Jamaica and employ negro labor. They do not come here, because the negro of this country is an American, do they?

Major GALLAGHER. No, sir.

Senator MORGAN. They get the cheapest, when it comes to labor?

Major GALLAGHER. They are cheap labor, and they stand that climate.

Senator MORGAN. Yes; they can stand the sun. I never saw a negro that could not stand the sun.

Major GALLAGHER. I do not know whether they are the cheapest labor. I believe that really, in the long run, the most efficient labor would be the cheapest.

Senator MORGAN. I was stating that for illustration. I want to find out why it is that the Government will not purchase supplies in markets where the material is equally good, and is cheaper, and will pur-

chase labor from any foreign country where it is no better than American labor?

Major GALLAGHER. Well, Senator, I do not think they have done that.

Senator MORGAN. They have not done it?

Major GALLAGHER. No, sir. I think that, as I say, they have placed orders for foreign material when it was the lowest, even though it were foreign material.

Senator MORGAN. But you have no agency in any foreign country to buy raw material of any kind for the canal. You have agencies to get labor.

Major GALLAGHER. Foreign firms have agencies here. and they submit their bids.

Senator MORGAN. And you go and get the labor in Jamaica and Martinique, not because it is any better, I suppose, but because it is cheaper?

Major GALLAGHER. Yes, sir.

Senator MORGAN. It is cheaper than it is here?

Major GALLAGHER. Yes, sir.

Senator MORGAN. Do you know of any reason why the same rule is not applied to labor that is applied to materials?

Major GALLAGHER. As I said, Senator, I think the rule is about the same. That is, we buy foreign material, and have done it, and I presume will do it again.

Senator MORGAN. Foreign material?

Major GALLAGHER. Yes, sir; when they get bids for some foreign material.

Senator MORGAN. Will you please state, now, what foreign materials they have bought?

Major GALLAGHER. They have bought, in the cases that I have already mentioned, some cement, and they have bought some pig lead that I know of.

Senator MORGAN. Yes.

Major GALLAGHER. There may be others.

Senator MORGAN. Where was the cement bought?

Major GALLAGHER. I think that came from Germany.

Senator MORGAN. Germany?

Major GALLAGHER. I think they got some German cement.

Senator MORGAN. Was it bought there because there was no American supply, or because the German cement was cheaper?

Major GALLAGHER. Because it was cheaper; the bid was lower.

Senator MORGAN. And better?

Major GALLAGHER. It was for foreign cement.

Senator MORGAN. It could not be better if it was Portland cement, could it?

Major GALLAGHER. It was Portland cement.

Senator MORGAN. The term "Portland cement" stands for a certain grade of cement, no matter where it is produced, does it not?

Major GALLAGHER. Yes, sir.

Senator MORGAN. There is not any difference in Portland cement produced in one place over that produced in another?

Major GALLAGHER. It is a high grade of Portland cement—a standard, recognized grade; and they offered to deliver it at Colon from abroad

cheaper than they could do it in this country, and the order was placed.

Senator MORGAN. Portland cement is made from a strict chemical formula?

Major GALLAGHER. Yes, sir.

Senator MORGAN. And when it fulfills the requirements of that formula it is Portland cement, and one is as good as another?

Major GALLAGHER. Yes, sir.

Senator MORGAN. So that when you buy Portland cement in Germany you do not get any better cement than if you had bought it in the United States?

Major GALLAGHER. I think that the American Portland cement is about as good as the foreign, but we do not make it as cheap.

Senator MORGAN. That is my point exactly. You buy it from Germany because it is cheaper?

Major GALLAGHER. That is why we placed the order.

Senator MORGAN. Then why do you not buy railroad iron there for the same reason?

Major GALLAGHER. We have never had any bids for it that I know of.

Senator MORGAN. But you have no offices there; you do not make any advertisements over there.

Major GALLAGHER. No; they have not done that. I do not suppose they have thought of that. That would be a question of general policy that I would not be very well able to pass upon.

Senator MORGAN. In the case of Portland cement you give the advantage to the foreign producer because it is cheaper?

Major GALLAGHER. Yes, sir.

Senator MORGAN. In the case of other things that have been mentioned here, such as railroad iron and various other materials, you will not give the advantage to the foreigner, even if it is cheaper?

Major GALLAGHER. Oh, I would not say that, Senator.

Senator MORGAN. But is not that the fact?

Major GALLAGHER. I do not think so. I do not think that has occurred. In cases where bids have been received for material, even though it was foreign material, and they were lower than the home bid, I think they have placed the order for the foreign material.

That has been done, and I think they will do it again. I do not believe there is any question about that. There have not been a great many bids on foreign material, because I do not know that the foreigners could compete in a great many cases.

Senator MORGAN. Are the goods that you buy—materials and other kinds—inspected before shipment?

Major GALLAGHER. Yes, sir.

Senator MORGAN. At the point where they are bought?

Major GALLAGHER. Usually at the point of manufacture, or where they are shipped.

Senator MORGAN. Have you any inspectors of these goods or of this material in all these great central cities of the Union?

Major GALLAGHER. Yes, sir.

Senator MORGAN. All of them?

Major GALLAGHER. We have inspection bureaus. We employ inspection bureaus to do the work.

Senator MORGAN. Yes, sir.

Major GALLAGHER. And they have inspectors right at the spot to look after them.

Senator MORGAN. You do not publish any advertisements for bids in any of these great cities?

Major GALLAGHER. Yes, sir; we do.

Senator MORGAN. In the interior?

Major GALLAGHER. Yes, sir.

Senator MORGAN. What cities, now, do you advertise in—Chicago?

Major GALLAGHER. Yes, sir.

Senator MORGAN. And Cleveland?

Major GALLAGHER. Yes, sir; we have advertised in Cleveland.

Senator MORGAN. And Cincinnati?

Major GALLAGHER. I think so.

Senator MORGAN. And St. Louis?

Major GALLAGHER. Yes, sir.

Senator MORGAN. And Memphis?

Major GALLAGHER. Yes, sir.

Senator MORGAN. These men, therefore, would have an opportunity under that advertisement to sell you goods through purchasing agents, providing you had the agents there to buy?

Major GALLAGHER. They have that opportunity anyhow.

Senator HOPKINS. They send their bids on to Washington, he says.

Major GALLAGHER. They send their bids on to Washington.

Senator MORGAN. Yes; they must come here for you to buy goods that they sell in Chicago?

Major GALLAGHER. No, Senator.

Senator MORGAN. They must come here to make the contract?

Major GALLAGHER. Not necessarily. They make the bids out in their offices in Chicago, or Cleveland, or wherever they are, and send them here, mail them to us. Then on a certain day they are all opened, and we place the order then, without their coming.

Senator MORGAN. What is the necessity for having subagents in the coast towns and not having subagents in the interior towns?

Major GALLAGHER. Mainly to look after the shipping of material, Senator.

Senator MORGAN. To look after the shipping?

Major GALLAGHER. Yes, sir; that is, I think, the principal part of the work of the agent in, say, New Orleans—to look after the shipping of material that is being purchased for the Commission.

Senator MORGAN. That brings up the point I want to get at. Do your advertisements of bidding require the material to be delivered in some coast town of the United States, or at Colon?

Major GALLAGHER. At Colon, or at La Boca on the Pacific side.

Senator MORGAN. If it is to be at Colon, why is there any necessity for subagents to look after the shipping?

Major GALLAGHER. We want to keep always in touch with this material, to see that it is going along.

Senator MORGAN. But they have nothing to do with it except to just stand and look at it and see that it is going along all right, have they?

Major GALLAGHER. Yes, sir; to keep track of it; to see that it is being handled properly and goes through all right, and also to report on its progress.

Senator MORGAN. But these subpurchasing agents in the coast

cities do not handle these products in any way, do they? They do not handle them? You buy a shipload of material in Chicago, for example?

Major GALLAGHER. Yes, sir.

Senator MORGAN. And you make your contract call for the delivery of that at Colon?

Major GALLAGHER. Yes, sir.

Senator MORGAN. And the seller is responsible for the goods until they are delivered at Colon?

Major GALLAGHER. Yes, sir.

Senator MORGAN. Now, whether they go through New York or New Orleans, your subagent in either of those cities does not take the goods and direct how they shall be shipped or have anything to do with them?

Major GALLAGHER. No, sir; but he keeps us informed about them; he keeps us posted as to their going forward.

Senator MORGAN. Is that all he has to do?

Major GALLAGHER. No, sir; he buys material at those particular points, too, and he looks after the inspection of material in his neighborhood.

Senator MORGAN. Yes.

Major GALLAGHER. For instance, we have the case of a shipment of a lot of brick through New York. The delivery is at Colon.

Senator MORGAN. I do not doubt that these agents of yours at these seaports are very valuable officers, but I can not understand why others are not located at these other great cities.

Major GALLAGHER. They might be advantageously located in the other great cities, Senator, but it would make it very extensive and very expensive, and the work is now being done pretty satisfactorily.

Senator MORGAN. As to the expense of it, would there not be an economy in having your agents located, for instance, in a great city like Chicago, which is half as big again as New York in its local trade? Do you not think there would be an economy in that? Would it not be an economy to have a subagent in Chicago to look after all these things there? Take the whole country over—St. Louis, Chicago, Cleveland, Cincinnati—would it not be a real economy to have these subagents there?

Major GALLAGHER. Well, Senator, as I said before, I can not see any great advantage in that, because if we had one subagency in Chicago, St. Louis can equally claim it, Cincinnati can claim it, Cleveland can claim it, other cities can claim it. If you justify these numerous offices it might be all right; it might result in some economies in one direction, but you would be incurring great expense in the other. I will venture to say that if Chicago got an agency, St. Louis would want one the next day. Of course I am simply giving my opinion of the thing. There might get to be too many agencies; they would be too great an expense, such an expense as would offset the economy that might be effected by having one, say, in Chicago.

Senator HOPKINS. You have experienced no inconvenience because you have not had these subagents?

Major GALLAGHER. No, sir; we have not.

Senator HOPKINS. And the Government has sustained no loss by reason of not having them?

Major GALLAGHER. I think not, Senator, that I know of. As the Senator says, it might be an advantage to have our agents there, but the thing is working quite satisfactorily now.

Senator MORGAN. I notice a provision here which I suppose is a part of the law of the situation. On page 162, I believe it is, of the regulations governing the purchase, delivery, etc., of materials and supplies, there is a provision that "not more than a six months' supply of material shall be carried." Who determines whether there is more than a six months' supply of material being carried or not?

Major GALLAGHER. That would be the duty of the chief of the division of material and supplies at the Isthmus.

Senator MORGAN. Yes. Now, do you know anything about this proposition—that there is at least eighteen months' or two years' or three years' supply of lumber in the Isthmus instead of six months' supply?

Major GALLAGHER. No, Senator; I do not know that. I do not know anything about that.

Senator MORGAN. You have not been connected with that subject in such a way as to know anything about it?

Major GALLAGHER. No, sir. We have filled their requisitions; and of course they, being on the spot, are the judges of what is wanted.

Senator MORGAN. Yes. You are regulated in the purchases you make by orders that emanate from somewhere. Where do those orders, or requisitions (if that is what they are), come from?

Mr. GALLAGHER. Yes, sir; they come from the Isthmus.

Senator MORGAN. They come from the Isthmus?

Major GALLAGHER. Yes, sir.

Senator MORGAN. So that the regulation for all of this material that is sent to you is that you make your advertisements for the bids?

Major GALLAGHER. Yes, sir.

Senator MORGAN. You state the length of time in which the property that you want to buy is to be delivered there?

Major GALLAGHER. Yes, sir.

Senator MORGAN. And that is all that you have to do with it?

Major GALLAGHER. And we place the order for the materials after the bids are opened.

Senator MORGAN. Yes; you place the order for the material?

Major GALLAGHER. Yes; and look after the inspection of it, to see that it conforms to the specifications.

Senator GORMAN. And you see that it is shipped?

Major GALLAGHER. Yes, sir.

Senator MORGAN. Now, if it is a fact, as stated here, that there is eighteen months' or two years' or three years' supply of lumber on the Isthmus, would you consider that that was in conformity with this law?

Major GALLAGHER. Well, Senator, I do not know a thing about that. I never heard that statement before—that there was lumber to that extent down there. I do not know anything about it.

Senator MORGAN. Oh, yes; it is there, rotting in great stacks, to-day.

Major GALLAGHER. Great quantities of lumber have been ordered; but it was presumed, so far as we knew here, that it was all required for immediate use—that is, for building these quarters that they are putting up.

Senator MORGAN. But the purchasing department has no control over that matter?

Major GALLAGHER. No, sir.

Senator MORGAN. If they want to buy five years' supply, and they order you to do it, you have got to do it? That is the point I want to get at.

Major GALLAGHER. Yes, sir.

Senator MORGAN. I want to show that your department had no connection with that at all.

Major GALLAGHER. No, sir; we had nothing to do with it.

Senator MORGAN. I do not think I have any more questions.

Senator TALIAFERRO. Major, I understood you to say that when you were appointed purchasing agent for the Commission there was a large accumulation of requisitions in the office?

Major GALLAGHER. Yes, sir.

Senator TALIAFERRO. What did you do with those, Major?

Major GALLAGHER. I immediately got them out; as soon as I could I got advertisements out asking for bids for the material called for in those requisitions.

Senator TALIAFERRO. You did not first inquire whether this delay in filling the requisitions had done away with the desire for the goods?

Major GALLAGHER. No, sir; I did not.

Senator TALIAFERRO. You simply took it for granted that the goods were still wanted?

Major GALLAGHER. The requisitions were sent to the chairman of the Commission, and my business was to make the purchases as soon as possible; and I proceeded to do that.

Senator TALIAFERRO. Have you bought a good deal of lumber at San Francisco and Tacoma and Portland?

Major GALLAGHER. Yes, sir; there has been a great deal of lumber purchased out on the Pacific coast. The great bulk of the lumber has been purchased out there.

Senator TALIAFERRO. That lumber was bought under inspection on delivery?

Major GALLAGHER. Under inspection at the place of shipment.

Senator TALIAFERRO. Not at delivery on the Isthmus?

Major GALLAGHER. No, sir; the inspection was made at the place of shipment.

Senator TALIAFERRO. The lumber was accepted at the place of shipment?

Major GALLAGHER. Yes, sir.

Senator TALIAFERRO. Do you reinspect it at the Isthmus?

Major GALLAGHER. I suppose it is looked over there.

Senator TALIAFERRO. It is checked up, I fancy?

Major GALLAGHER. It is checked up. They check it to see that the quantity specified is delivered and that the dimensions are as required; but they do not make any inspection at the Isthmus in the case of lumber. I think that under the recent circular proposals there is a clause to the effect that all material will be subject to inspection at the place of manufacture or point of shipment and also at the Isthmus.

Senator TALIAFERRO. A double inspection?

Major GALLAGHER. Yes, sir; that is the recent system. Formerly, however, the course was to have inspection at the point of shipment,



and that ended it, excepting the checking as to quantity and condition on arrival.

Senator TALIAFERRO. Do you mean to say, Major, that you have had no complaints from the Isthmus that there was more stuff there in the way of supplies or material than was needed for current use?

Major GALLAGHER. We have had no complaints that I recall—not for a long time.

Senator TALIAFERRO. You say “for a long time”?

Major GALLAGHER. Yes, sir.

Senator TALIAFERRO. Have you ever had any complaints from the Isthmus?

Major GALLAGHER. I do not know that we have ever had any complaints. I recall one or two occasions where some material that was purchased for use down there was found to be in excess, through error. I know of one case where an order was placed, prior to my going into the office, for some material, and the clerk in writing it out made an error, so that there was a good deal more sent down than was required. That is one case that I recall. In another case, where we sent down some rope, there was a misunderstanding about the specifications; and that rope, when it went down, was found to be not exactly what was wanted. It was sent back to this country, and they have tried to exchange it for other rope. I do not know what success they have had in that, but as to any other cases I can not recall them.

Senator TALIAFERRO. In making contracts for the delivering of supplies and material on the Isthmus, is there a penalty clause in the contract for nondelivery or delay?

Major GALLAGHER. Yes, sir.

Senator TALIAFERRO. Have you ever had occasion to enforce that clause?

Major GALLAGHER. No, sir; not that I know of.

Senator TALIAFERRO. Would such a matter come to you?

Major GALLAGHER. As I say, for the last six months, Senator, I have not been closely identified with that particular part of the office. My work has been what was assigned to me, and during Mr. Ross's absence I do not recall any case where we have had to enforce the penalty clause.

Senator MORGAN. If I will not interrupt you, may I ask you the name of the purchasing agent for the Panama Railroad Company?

Major GALLAGHER. Mr. Alfred Anderson.

Senator MORGAN. He lives in New York?

Major GALLAGHER. Yes, sir.

Senator MORGAN. Is he the one that used to buy for the railroad company?

Major GALLAGHER. Yes, sir.

Senator MORGAN. The same man?

Major GALLAGHER. Yes, sir.

Senator TALIAFERRO. The Commission makes no purchases for the railroad company, I understand you to say?

Major GALLAGHER. No, sir.

Senator TALIAFERRO. What do they want with these ties that they are advertising for?

Major GALLAGHER. They are for use in the construction of tracks for removing the earth from the excavation.

Senator TALIAFERRO. These lateral tracks?

Major GALLAGHER. Lateral tracks; yes, sir. I understand that there is to be a large quantity of trackage, a good many miles. Mr. Wallace told me at one time that there would probably be 300 miles of extra trackage put down there on the construction work for carrying away the material, and these ties were required for that purpose.

Senator TALIAFERRO. So far as you know, Major, the work down there is getting along pretty well?

Major GALLAGHER. I think everything is running very, very smoothly now; yes, sir.

Senator TALIAFERRO. Most of the complaints are disappearing?

Major GALLAGHER. Yes, sir.

Senator TALIAFERRO. I have no further questions.

Senator HOPKINS. What was the date of your employment as purchasing agent, or the date of your original employment with the Commission?

Major GALLAGHER. The 1st of February of last year.

Senator HOPKINS. Of 1905?

Major GALLAGHER. Of 1905; yes, sir.

Senator HOPKINS. Who preceded you in that office?

Major GALLAGHER. Mr. Redfern was acting as purchasing agent. He was chief clerk of the Commission.

Senator HOPKINS. He acted in that capacity from the time of the organization of the Commission up to the time you were appointed?

Major GALLAGHER. Yes, sir; I understand so.

Senator HOPKINS. How long did you serve in the capacity of purchasing agent?

Major GALLAGHER. Four months.

Senator HOPKINS. Then who took the position of purchasing agent?

Major GALLAGHER. Mr. D. W. Ross, of Chicago.

Senator HOPKINS. What has been your position since?

Major GALLAGHER. Deputy general purchasing officer.

Senator HOPKINS. I have not clearly in my mind how you and Mr. Ross have divided your duties since his appointment as chief and your appointment as deputy purchasing agent, and I would like to have you explain that fully to the committee.

Major GALLAGHER. When Mr. Ross was appointed he assigned me certain work. He would give me a certain amount of work, certain papers to handle. The work in the office was very great, and he could not handle it all. He would turn over some of it to me to do; and when he was absent—he had to go down to the Isthmus on two occasions—I acted in his stead as purchasing officer.

Senator HOPKINS. In answering the questions propounded to you by Senator Gorman, you said a number of times that you were not familiar with that; that Mr. Ross had done that.

Major GALLAGHER. Yes, sir.

Senator HOPKINS. What I would like to know is as to whether there is a division of labor as between you and your chief, where you are responsible for one class of purchases and he for another?

Major GALLAGHER. No, sir; there is no such division. I do what he tells me. If he gives me a certain subject to handle, I handle it; if he does not give me anything I do not have anything to do with it. In the case of these big matters, being a railroad purchasing officer, he handled them altogether, and very properly, I thought.

Senator HOPKINS. So that as to all those matters you would have no special knowledge?

Major GALLAGHER. No, sir.

Senator HOPKINS. You said, in answer to one of the questions propounded to you, that in one instance, by the error of a clerk, an excessive quantity of material was sent down there.

Major GALLAGHER. Yes, sir.

Senator HOPKINS. What was done in that instance? Was the excessive quantity returned?

Major GALLAGHER. It was returned to the United States, part of it.

Senator HOPKINS. So that there was no loss to the Government?

Major GALLAGHER. I think there will be a small loss to the Government, Senator. The firm that sold us that material recognized that an error had been made, and agreed to take some of it back, and then an effort was made to sell the balance of it. But that was recent work; and as I have been preparing to go away, I do not know just what was the outcome of that transaction. But I think there will be a loss.

Senator HOPKINS. That is the only instance you now recall, during the entire period you have been connected with the Commission, where such a mistake has occurred?

Major GALLAGHER. That is the only case that I recall at present; yes, sir.

Senator HOPKINS. Senator Morgan asked you something about why you did not buy steel rails abroad. As I understand you, you have had nothing to do with the purchase of iron or rails. That has been done by Mr. Ross?

Major GALLAGHER. I have had practically nothing to do with the purchase of rails.

Senator HOPKINS. You do not know whether they can be bought in a foreign market any cheaper than they have been bought here, do you?

Major GALLAGHER. I do not, Senator; I do not know.

Senator HOPKINS. But you do know that these foreign houses have agents in New York and that the advertising for steel rails has been open and notorious, so that the foreign houses have known what the Commission wanted and have had an opportunity to bid if they saw fit?

Major GALLAGHER. Yes, sir; I think that is the case in these latter purchases. As to those that were purchased by the Panama Railroad Company, Senator, I do not know whether they were advertised or not. The original purchase was really made before I went in there; and then an additional order was given for 2,500 tons of rails.

Senator HOPKINS. Yes.

Major GALLAGHER. But these latter purchases of steel rails made by Mr. Ross were made under advertisement in the usual way.

Senator HOPKINS. Yes. Now, Senator Morgan asked you also something about purchasing in foreign countries—whether you could not get the articles abroad cheaper than you could in this country. You do not know that you can get them cheaper abroad than they have been purchased here, do you?

Major GALLAGHER. No, sir; I do not know that.

Senator HOPKINS. But do you know the fact that all of these purchases have been open and public?

Major GALLAGHER. Yes, sir.

Senator HOPKINS. And have been made by competitive bids?

Major GALLAGHER. Yes, sir.

Senator HOPKINS. And you do know that these foreign houses have had their agents in New York, where they could have bid for these articles, the same as the American houses?

Major GALLAGHER. Yes, sir; they have had that opportunity.

Senator HOPKINS. And in each instance the bid has been received that was the lowest?

Major GALLAGHER. Yes; well, I explained that we did not always make the award to the lowest bidder, but I presume that in all such cases—

Senator HOPKINS. But, Major, if I understood your evidence correctly, you did always give it to the lowest bidder for the article if it complied with the specifications?

Major GALLAGHER. That is right, yes, sir; that is correct.

Senator MORGAN. You do know about cement purchases?

Major GALLAGHER. Yes, sir; the cement was purchased in foreign countries; it was supplied from abroad. I think the bid was submitted, as I said, by an American firm or agents.

Senator HOPKINS. As to whether the tariff that we have has any effect upon this, that is not a matter that you would want to testify on one way or the other, is it?

Major GALLAGHER. Why, Senator, I would not feel competent to testify about that.

Senator HOPKINS. No; that is what I supposed. In regard to the labor we have down there, you as purchasing agent of material have no more to do with the labor there than a member of this committee, have you?

Major GALLAGHER. No, sir.

Senator HOPKINS. And as to whether the Martinique or Jamaica colored man can work better than the American colored man, you do not know?

Major GALLAGHER. Not from my experience with them there. I have seen those laborers in Martinique.

Senator HOPKINS. You were also questioned in regard to the purchase of coal. The coal that has been sent to the Isthmus is coal that has been purchased by competitive bids, is it not?

Major GALLAGHER. There was some, Senator, that was not; but all those purchases were made by the Panama Railroad Company.

Senator HOPKINS. Has it not been done by competitive bids?

Major GALLAGHER. I do not know about that; I think so.

Senator HOPKINS. Then what you mean to say is that in so far as the coal that has been sent to the Isthmus is concerned, you do not know how it has been purchased, or anything about it? Is that it?

Major GALLAGHER. I do not know how it has been purchased by the Panama Railroad Company. We got out advertisements for a large quantity of coal purchased by the Commission; but after considering the whole transaction—they tried that coal down there and the results were not satisfactory—the chairman of the Commission decided to have the Panama Railroad Company handle the whole matter of the purchase of that coal.

Senator HOPKINS. But why did they decide to have the railroad company do it?

Major GALLAGHER. I presume because the railroad company had facilities for handling it down there better, perhaps, than the Commission. What Mr. Shonts's reasons were, I do not know.

Senator HOPKINS. Was it because it was in the interest of economy?

Major GALLAGHER. I am not well enough informed on the details of the whole thing to answer that question. Mr. Shonts knows all about it; and Mr. Ross probably is better informed than I am. I remember that I carried out his instructions, so far as I could, to have the contractors agree to the transfer of the contract to the Panama Railroad Company and have it handled by them; and I think it was done in order to simplify the matter.

Senator HOPKINS. These contractors, you say, transferred the contracts to the railroad company. Was that coal that had been contracted for by competitive bids?

Major GALLAGHER. Yes, sir; yes, sir. That was purchased under competition, under advertisement.

Senator HOPKINS. As to what tests are made of the coal that is sent to the Zone you have no knowledge, I suppose?

Major GALLAGHER. I have no knowledge; no, sir. The tests that we specified in that poster circular were quite elaborate, and the coal was supposed to stand all those tests.

Senator HOPKINS. Practically the same tests that are made in the Navy and other Departments of the Government?

Major GALLAGHER. Yes, sir; and we were allowed to make those tests at any time or place.

Senator MORGAN. Do you carry any of this coal purchased on your accounts at all?

Major GALLAGHER. I do not think any at all has been purchased by the Commission, Senator.

Senator HOPKINS. You have stated—if I understand your evidence correctly—that the railroad company and the Canal Commission proper have separate accounts?

Major GALLAGHER. Yes, sir.

Senator HOPKINS. So that if the railroad company purchased the coal, they would have the account of that?

Major GALLAGHER. They would have the account of that and sell it to the Commission. Senator Morgan, there was, I think, about 400 tons purchased direct by the Commission. That is all that I recall—a small quantity.

Senator HOPKINS. You stated something about emergency purchases. I want to know, Major, what the fact is as to whether any favoritism has been shown in any of those purchases.

Major GALLAGHER. Senator, I know of no case where favoritism has been shown.

Senator HOPKINS. Either in the case of emergency purchases or others?

Major GALLAGHER. Or any others. I know it has been my desire, and I am satisfied it is the desire of the present head of the office, to give everybody a fair and equal chance for the business. I think he is just as anxious to do it as I or any other officer of the Government could be. That is my belief. I know of no case at all where any favoritism has been shown. I know that there could not be any case of that under me—I would not have it—and I am sure Mr. Ross is the same.

Senator SIMMONS. You were asked by Senator Gorman, Major, in reference to your employment by the Government before you were made purchasing agent.

Major GALLAGHER. Yes, sir.

Senator SIMMONS. What did I understand you to say have been your duties in your former employment?

Major GALLAGHER. I was in the Commissary Department of the Army.

Senator SIMMONS. What were your duties in connection with your position in the Commissary Department?

Major GALLAGHER. They have been very varied, Senator.

Senator SIMMONS. Were you purchasing agent?

Major GALLAGHER. I was purchasing agent on two or three occasions. I was made lieutenant-colonel purchasing agent at Montauk Point, and I was lieutenant-colonel purchasing agent at Augusta, Ga. I was chief of commissary of the expedition in China, where I made a number of purchases.

Senator SIMMONS. Were your duties when you held those positions the same as your duties as purchasing agent of the Canal Company?

Major GALLAGHER. My duties in connection with this Canal Commission have been more varied, but the methods are about the same in all departments of the Government.

Senator SIMMONS. Are the responsibilities of your present position any greater than those of the position you occupied before as purchasing agent?

Major GALLAGHER. I consider that I have held more responsible positions when I was chief commissary of the army in China, and also when I succeeded General Weston as chief commissary of the Santiago army.

Senator SIMMONS. Your duties then were more responsible than your duties now?

Major GALLAGHER. I considered them more *responsible* in every way; but this has been a very difficult task.

Senator SIMMONS. There has been more work, do you mean?

Major GALLAGHER. There has been more work; yes, sir.

Senator SIMMONS. Was not the work in connection with the other positions quite onerous?

Major GALLAGHER. They were all onerous; but this has been a task where we had nothing to take hold of, to start with—where we had to practically organize the thing and get it in running shape.

Senator SIMMONS. You mean your present employment?

Major GALLAGHER. When I took charge of the purchasing department. At present it is going very smoothly; I think everything is running all right.

Senator SIMMONS. What I was leading up to was this: I understood that as purchasing agent formerly, in connection with your service in China and in this country, before you were made purchasing agent for the Canal Commission, your salary was about \$4,000.

Major GALLAGHER. Yes, sir.

Senator SIMMONS. Your salary then was about \$4,000?

Major GALLAGHER. Yes, sir; it was more when I was lieutenant-colonel.

Senator SIMMONS. How much was it increased to?

Major GALLAGHER. Four thousand eight hundred dollars.

Senator SIMMONS. Did you ask for that increase?

Major GALLAGHER. Well, no, Senator; I did not ask for it. The Commission thought that the position was entitled to some extra compensation.

Senator SIMMONS. They gave it to you?

Major GALLAGHER. Yes, sir. I do not think I would have—

Senator SIMMONS. Since then it has been increased again?

Major GALLAGHER. Yes, sir.

Senator SIMMONS. Have the duties of the office increased, or have the responsibilities of the office increased, since the first increase in your salary?

Major GALLAGHER. I can not say that they have, so far as my responsibilities are concerned; no, sir.

Senator SIMMONS. Your present salary is \$6,400?

Major GALLAGHER. Six thousand four hundred and eighty dollars.

Senator SIMMONS. Did you ask for that second increase in your salary?

Major GALLAGHER. When Mr. Ross was appointed, they asked me what I wanted to do. I said that I preferred to return to my own department in the Government—to go back in the Army. Mr. Shonts suggested that I remain as deputy general purchasing officer; and at the time, as I remember the conversation, I told him that if I did continue I thought that I ought to have extra pay.

Senator SIMMONS. Was that after the first increase in your salary?

Major GALLAGHER. No, sir; that was the last increase.

Senator SIMMONS. That was the last increase?

Major GALLAGHER. I told him I thought I ought to have extra pay.

Senator SIMMONS. Were you not satisfied with the first increase in your salary?

Major GALLAGHER. Which; the first time?

Senator SIMMONS. Yes.

Major GALLAGHER. Well, when I looked back at the task that I had, and considering the salaries that are paid to purchasing agents in this country, I did not think that it was enough. While I say that I have had other responsible positions, I do not think I have ever had anything that worried me as much as this did, in the mental effort required. The others were cases where there would be a good deal of physical exertion; but to tackle that job when I did was a big task, Senator—a very big task.

Senator SIMMONS. I do not understand that you asked for either of these increases?

Major GALLAGHER. I did not ask for the first, but the last time I suggested that if I was to be continued on I should get an increase.

Senator SIMMONS. Did you suggest how much?

Major GALLAGHER. I do not think I did. I do not remember that I did.

Senator SIMMONS. The second increase was about \$1,600?

Major GALLAGHER. Yes, sir.

Senator SIMMONS. You spoke of a number of clerks under you—about 20, I think you said?

Major GALLAGHER. About 20, I think, at the present time.

Senator SIMMONS. Does that mean under you, or under you and Mr. Ross?

Major GALLAGHER. Under Mr. Ross. They are in the office; I think that is the way I expressed it.

Senator SIMMONS. Who appoints those clerks?

Major GALLAGHER. They are appointed from the Civil Service Commission--on application, of course, from our office stating that we want more clerks. The Civil Service Commission are requested to certify men, and selections are made in that way.

Senator SIMMONS. You do not make any suggestions at all about the appointments, or who shall be appointed?

Major GALLAGHER. Not as a general rule; no, sir.

Senator GORMAN. Do you in any particular case? You say you do not do it as a general rule; do you do it at all?

Major GALLAGHER. I did when I first went into the office; I suggested that a man be detailed as my chief clerk.

Senator SIMMONS. Was that man under the civil service?

Major GALLAGHER. He was. He was transferred.

Senator SIMMONS. That was just a transfer?

Major GALLAGHER. Yes, sir. I later requested the appointment--

Senator SIMMONS. I am speaking now of cases of original appointments. Do you make any suggestions about the appointments in such cases? Are there any influences brought to bear to secure the appointment of persons?

Major GALLAGHER. I think not; no, sir. I do not recall any. The appointments are made by the Civil Service Commission. I remember one case where a young lady was appointed there, recently, who had been a temporary clerk for six months, and she was put on the permanent roll, but by the Civil Service Commission, Senator.

Senator ANKENY. I understand, Major, from what you have stated, that you are a commissary in the Regular Army?

Major GALLAGHER. Yes, sir.

Senator ANKENY. And you have followed the practice of all commissaries of the Regular Army in all this work?

Major GALLAGHER. I have tried to.

Senator ANKENY. Yes, sir; and it is a very good rule to have, too. In the purchase of those goods, for instance, where does your responsibility begin?

Major GALLAGHER. When we receive the requisition.

Senator ANKENY. And where does it cease?

Major GALLAGHER. When the material is shipped.

Senator ANKENY. Who is at the end; who is your depot quarter master who receives the goods, and who is responsible for them?

Major GALLAGHER. The chief of the division of materials and supplies.

Senator ANKENY. What is his name?

Major GALLAGHER. Mr. Tubby.

The CHAIRMAN. He is on the Isthmus, as I understand?

Major GALLAGHER. Yes, sir; and he receipts the invoices.

Senator ANKENY. He is the depot quartermaster?

Major GALLAGHER. Yes, sir.

Senator ANKENY. And is responsible for every currycomb or whatever else is received there?

Major GALLAGHER. Yes, sir.

Senator KITTREDGE. Who made the error in making the purchase that you have mentioned?



Major GALLAGHER. A clerk in the office, by the name of Mr. Gray.

Senator KITTREDGE. Was he furnished to you by the Civil Service Commission?

Major GALLAGHER. Yes, sir; I think he was. Well, Senator, I do not know. This error was made before I went into the office. I discovered it afterwards, of course, when our attention was brought to the fact. I do not know whether he was appointed through the Civil Service Commission or whether he was appointed under the old Commission. Then an order was issued putting those employees under the civil service, and he may have come in in that way.

Senator KITTREDGE. When did you discover the requisitions which you have stated were not filled at a certain date?

Major GALLAGHER. I discovered them shortly after I got into the office.

Senator KITTREDGE. Do you remember when that was?

Major GALLAGHER. It was probably along about the first week in February.

Senator KITTREDGE. And when were the advertisements made after that date?

Major GALLAGHER. We got them out just as soon as possible. They went out by or before the end of that month.

Senator KITTREDGE. You made the purchases when?

Major GALLAGHER. During the month of March we opened a number of bids; in the latter part of February we began opening some bids. In March there were a number opened. During April, as I said, there were 22 openings, and during May there were about 15; and so it went on. That was the result of those accumulated requisitions, Senator.

Senator KITTREDGE. For what length of time do you advertise?

Major GALLAGHER. I usually advertised for thirty days; in some cases for a shorter time.

Senator KITTREDGE. Do you know of any discrimination between persons or places in making purchases of material or supplies for the Isthmus of Panama?

Major GALLAGHER. There has been no discrimination so far as persons are concerned. There may have been some discrimination in places. I would not call it discrimination; it was because it could be most readily done. For instance, suppose we wanted to buy something which was called for by cablegram from the Isthmus and was to be shipped immediately. We would get it in New York—you can usually get what you want there—and it could be shipped immediately. We knew that. It was not done, however, for the purpose of discriminating against any other place; it was done because that was the best place to make the purchase under the circumstances. In some cases New Orleans was also used as a base in that way.

Senator KITTREDGE. That is all.

Senator GORMAN. Before you go you say you have there copies of the circulars you issued; kindly let me look at them for a moment.

Major GALLAGHER. These are some that were prepared while I was in the office, Senator. One is a type of all of them. It shows the quantity of material.

Senator GORMAN. Are they all alike?

Major GALLAGHER. They are pretty nearly the same. The adver-

tisements appearing at the head of these are copies of those that were printed.

(At the direction of the committee a copy of circular above referred to was made a part of the record, and the same is appended hereto.)

The committee thereupon adjourned until Monday, January 22, 1906, at 2.30 o'clock p. m.

The copy of circular referred to just prior to the adjournment of the committee is as follows:

[(Serial No. 229.) PROPOSALS FOR DUMP CARTS AND WAGONS, WHEELED SCRAPERS, AMBULANCE AND CART HARNESS. Office, Isthmian Canal Commission, Washington, D. C., May 8, 1905. Sealed proposals, in triplicate, will be received at the office of the purchasing agent, Isthmian Canal Commission, Washington, D. C., until 10.30 a. m., May 31, 1905, at which time they will be opened in public, for furnishing above-mentioned supplies. Blanks and full information may be obtained from this office, or offices of asst. purchasing agent, 24 State St., N. Y. City, or asst. purchasing agent, at custom-house, New Orleans, La., and blanks may be had at Chamber of Commerce, San Francisco, Cal. H. J. Gallagher, Major, U. S. Army, Purchasing Agent.]

#### POSTER—CIRCULAR. (ADVERTISEMENT.)

ISTHMIAN CANAL COMMISSION,  
OFFICE OF PURCHASING AND SHIPPING AGENT,  
*Washington, D. C., May 8, 1905.*

#### DUMP CARTS AND WAGONS, WHEELED SCRAPERS, AMBULANCE AND CART HARNESS.

Sealed proposals, in triplicate, will be received at the office of the purchasing agent, Isthmian Canal Commission, Washington, D. C., until 10.30 o'clock, a. m., on the 31st day of May, 1905, at which time they will be opened in public, for furnishing the articles as hereinafter specified.

Bids received AFTER the hour of the date above specified will NOT be considered and will be returned unopened.

Each proposal must be accompanied by either a certified check made payable to the chairman of the Isthmian Canal Commission, or a proper guaranty, in a sum equal to ten (10) per centum of the aggregate amount of the proposal. The check, in the case of a successful bidder, will be held at the option of the Commission either until a contract has been entered into or until the articles bid upon have been delivered and accepted, otherwise until the bid is rejected, when it will be returned.

All articles to be delivered c. i. f. (by steamer) at either Colon (Atlantic port) or La Boca (Pacific port), Isthmus of Panama. Inspection will be made at place of manufacture or purchase to determine whether material meets the requirements set forth in the specifications, and on the Isthmus as to condition upon arrival there.

Bidders must state where they propose to make delivery; the time when they propose to commence delivery, and within what time they will complete same after receipt of notice of award.

Preference will be given to articles of domestic production or manufacture, conditions of quality and price (including in the price of foreign productions or manufactures the duty thereon) being equal.

The Commission reserves the right to increase or reduce the quantities specified, at any time during the continuance of the contract, not to exceed twenty (20) per centum thereof.

Proposals must be signed by the bidder, and placed in a sealed envelope marked "Proposal for dump carts and wagons, harness, etc., to be opened on the 31st day of May, 1905," and addressed to the Purchasing Agent, Isthmian Canal Commission, Washington, D. C.

Blanks and full information may be had from purchasing agent, Washington, D. C., or from assistant purchasing agent, 24 State St., New York City, or assistant purchasing agent at custom-house, New Orleans, La., and blanks may be had at Chamber of Commerce, San Francisco, Cal.

Bidders are reminded that postage in full must be prepaid on mailing bids to this office.

The Commission reserves the right to reject any or all bids and to accept any bid in the aggregate or parts of same as may be deemed most advantageous.

H. J. GALLAGHER,  
Major, U. S. Army, Purchasing Agent.

*Schedule.*

Item.	Articles.	Quantity required.	Unit price.		Total price.	
			Dollars.	Cents.	Dollars.	Cents.
	<b>CLASS 1.</b>					
	<b>Zone Req. 862 C.</b>					
1	Single dump carts..... Standard narrow gauge, two wheels about 4' 6", skeins about 3½ x 11", tire about 2½" x 1". Length of bed about 5' 4", inside width, front about 33½", rear about 36½", depth about 14", weight about 700 lbs., capacity about 1,800 lbs. Carts to be made of best material, strong and durable.	25				
2	Wheeled scrapers..... To be standard make, strong and durable; wheels about 40", tires about 3½"; bowl to be of best hardened steel; capacity about 14 cubic feet.	2				
3	Four-wheel contractor's dump wagons..... Standard narrow gauge; price to include whiffletrees, stay chains tongue chains, and wrench; axles about 2½ x 12"; height of wheels, front about 3' 1", hind about 4' 3"; size of tire about 8 x 4"; inside dimensions of bed, 9' 3½" x 2' 11½"; depth about 12"; weight, gear only, about 1,350 lbs.; dump boards about 375 lbs.; capacity about 6,000 lbs.; bottom boards about 3" thick, 4" wide; side boards about 1½" thick, 15" wide.	5				
4	Four-wheel bottom-dump wagons..... Studebaker "Ideal," or equal. (Cut may be seen at office Isthmian Canal Commission, Washington, D. C.) Above-mentioned carts, wagons, etc., to be "knocked down" and securely crated for ocean shipment.	5				
	Total, class 1.....					
	<b>CLASS 2.</b>					
5	Double ambulance or escort harness, wheel. See specifications hereto attached in so far as they apply to this item. Specifications include whip.	25	Sets			
6	Extra collars for above harness, 18".....	20				
7	Extra collars for above harness, 19"..... See specifications hereto attached in so far as they apply to above items.	30				
8	Dump-cart harness.....	25	Sets			
	<b>SPECIFICATIONS FOR DUMP-CART HARNESS.</b>					
	Bridles to be 1" leather, with blinds; lines 1" flat; collars, 21" and 22", No. 1 peak rim; hames with iron ovetop hooks; hame straps, 1"; saddle wood tree, single leather covered, leather pad; belly-band, 2", single leather; shaft band, 1½" single leather; breeching, 3", with chains; hip straps, 1½"; loin strap, 1½".					
9	Extra collars for above harness, 17".....	25				
	Total, class 2.....					

*Specifications for four-mule ambulance or wagon harness.*

ISTHMIAN CANAL COMMISSION,  
Washington, D. C., May 3, 1905.

**WHEEL.**

*Two bridles.*—Crown pieces, 2 feet 2 inches long, 1½ inches wide, split 7 inches, so as to form straps to receive buckles of cheek pieces, ½ inch wide, and buckles of throat latches, ¾ inch wide; chape on top ¾ inch wide, secured with stitches and No. 10 copper rivet and burr, with rein ring 1½ inch, No. 2, and ¾-inch buckle to receive winker stay and face piece.

*Throat straps*, 1 foot 7 inches long,  $\frac{3}{4}$  inch wide, with buckle on each end, laps  $2\frac{1}{2}$  inches long.

*Front pieces*, 1 foot 4 inches long, including loops, which crown piece is to pass through; to be  $\frac{3}{4}$  inch wide,  $2\frac{1}{2}$ -inch laps, with  $1\frac{1}{2}$ -inch brass U. S. filled rosette on on each side; letters to be  $\frac{3}{4}$ -inch loops, 1 by  $\frac{1}{2}$  inch inside measurement, of No. 8 wire.

*Cheek pieces*, 8 inches long,  $\frac{3}{4}$  inch wide,  $\frac{3}{4}$ -inch buckle, and two  $\frac{3}{4}$ -inch cut loops on upper ends,  $1\frac{1}{2}$ -inch No. 4 ring on lower ends.

*Blinds or winkers*,  $4\frac{1}{2}$  by  $5\frac{1}{2}$  inches in the clear,  $\frac{5}{8}$  inch thick, of two thicknesses solid harness leather, corners rounded, two rows of stitching  $\frac{3}{4}$  inch apart around the edges; one  $1\frac{1}{2}$ -inch brass U. S. filled ornament on each.

*Blind or winker stays*, 1 foot 2 inches long,  $1\frac{1}{2}$  inches wide, split 7 inches at one end, tapered to  $\frac{3}{4}$  inch at other end.

*Face pieces*, 2 feet long,  $1\frac{1}{2}$  inch wide, split  $10\frac{1}{2}$  inches, stitched into cheek rings with laps 2 inches long at one end, one scalloped wave in center, tapered to  $\frac{3}{4}$  inch at other end.

*Bil straps*, 10 inches long,  $\frac{3}{4}$  inch wide, with buckle, and two loops stitched in, with lap  $2\frac{1}{2}$  inches long.

*Bils*.—Standard No. 47 A, jointed, all wrought, loose rings,  $2\frac{1}{2}$  inches inside diameter, japanned, to weigh from 7 to 8 pounds per dozen.

*Long reins*, 4 feet 6 inches long,  $\frac{3}{4}$  inch wide; billets 9 inches long,  $\frac{3}{4}$  inch wide, with buckle on one end, the other end to be properly pointed and punched; laps 3 inches long.

*Short reins*, 2 feet long,  $\frac{3}{4}$  inch wide, with  $\frac{3}{4}$ -inch buckle on one end; billets 9 inches long,  $\frac{3}{4}$  inch wide, with buckle on other end; laps 3 inches long.

*Rein straps*, 8 inches long,  $\frac{3}{4}$  inch wide, with  $1\frac{1}{2}$ -inch No. 3 ring stitched into one end; billet 7 inches long,  $\frac{3}{4}$  inch wide, with buckle on other end; laps  $2\frac{1}{2}$  inches long.

*Two hair collars*.—Best quality No. 1 kip leather, blacked, solid backs, well shaped to receive hames, solid rim, to measure not less than 5 inches; bellies to be well faced with best quality clean-picked western hog hair, stuffed with long straw, ticking between hair and straw, bulge at point of shoulder to measure not less than  $12\frac{1}{2}$  inches; to be lapped at throat not less than 2 inches, middle seamed with strong leather thong, with not less than 10 stitches to the foot; outside seam to be hand-stitched—3 to the inch—with double ends of five-cord No. 10 thread, well waxed with black wax; to have  $\frac{1}{4}$ -inch welts all in one piece; wear leathers on shoulder point to measure  $4\frac{1}{2}$  inches long next to rim and  $5\frac{1}{2}$  inches at outer edge; to be capped with collar leather before finishing; to be finished with 2 buckle chapes, each  $3\frac{1}{2}$  inches long, with  $\frac{1}{4}$ -inch buckles and  $\frac{3}{4}$ -inch loops; 2 billets, each 7 inches long in clear,  $\frac{3}{4}$  inch wide, stitched on with 3-inch laps; chapes and billets to be stitched to collars with double ends of five-cord No. 10 thread, well waxed with black wax, each lap to have not less than 24 stitches, which includes 2 drop stitches at upper end of each row; chapes, loops, and billets to be of best quality harness leather, edges creased and blacked; pads of solid, smooth harness leather 8 inches long, 6 inches wide, corners rounded, edges skived properly, and to be attached to collar by same stitches that secure the billets; to have harness leather loops  $\frac{3}{4}$  inch wide encircling collar, neatly stitched to pads; sizes of collars to be stamped on one billet and manufacturer's name on other; size of collars to run from 18 to 22 inches.

*Two pair hames*.—Wood, white ash,  $25\frac{3}{8}$  inches end to end; 3 mortised top loops,  $\frac{5}{8}$  inch by  $1\frac{1}{2}$  inch; length from bottom loop to lower top loop,  $18\frac{1}{4}$  inches; to second loop,  $20\frac{1}{4}$  inches; to upper loop,  $22\frac{3}{8}$  inches; width at shoulder,  $1\frac{1}{2}$  inch; backs soft steel,  $\frac{3}{4}$  inch by  $\frac{5}{8}$  inch,  $26\frac{1}{2}$  inches over all, including loop; carried around to bottom end and riveted through wood, inclosing bottom loop offset for strap  $1\frac{1}{2}$  inch wide, with roller; riveted to wood with 6 rivets, including one for bottom loop. Line rings, 2 inches inside measurement,  $\frac{1}{2}$  inch diameter, shoulder for stud riveted through wood to washer. Staples,  $\frac{7}{8}$  inch, soft steel, riveted to wrought plate,  $\frac{3}{4}$  inch by  $2\frac{1}{2}$  inches, No. 12 gauge. Breast rings, 2 inches by  $\frac{5}{8}$  inch, soft steel, attached by twist links into staple. Finish, back steel, roughly polished, varnished. Clips,  $\frac{3}{4}$  inch,  $\frac{1}{2}$  inch wide, with 3 holes for rivets.

*Four hame straps*.—Upper, 2 feet 4 inches long, 1 inch wide; lower, 1 foot 10 inches long, 1 inch wide, with buckles and  $\frac{1}{4}$ -inch loops; laps 3 inches long.

*Two breast straps*, 5 feet long,  $1\frac{1}{2}$  inch wide, with  $1\frac{1}{2}$  inch japanned, malleable, barrel pattern, roller trace or pole-strap buckles, No. 53, and two  $1\frac{1}{2}$ -inch loops, stitched in with a 9-inch lap, one  $1\frac{1}{2}$ -inch japanned Sargent's No. 6 snap, and one  $1\frac{1}{2}$ -inch slide loop on each strap.

*Two choke-straps*, 3 feet long,  $1\frac{1}{2}$  inch wide, with reversed  $1\frac{1}{2}$ -inch buckle stitched in one end, forming a loop, with  $1\frac{1}{2}$ -inch No. 1 ring in the loop; billet, 1 foot 8 inches long,  $1\frac{1}{2}$  inch wide, with buckle on other end; laps to be  $3\frac{1}{2}$  inches long, No. 8 copper rivet and burr in each lap.

*Four traces*, 5 feet 6 inches long,  $1\frac{1}{4}$  inch wide,  $\frac{1}{2}$  inch thick, three-ply solid leather, three rows of stitching, center row to extend from triangle to 6 inches of front end of traces, with a three-waved safe 12 inches long in front; waves to measure  $3\frac{1}{2}$  inches,  $3\frac{1}{2}$  inches, and 3 inches wide, riveted to hames with clips at front end; back end to be stitched into  $1\frac{1}{4}$ -inch roller triangle of chains, with return lap 5 inches long. Chains 30 inches long, including triangle and hook, of No. 1 iron, 9 twisted links to the foot, with  $1\frac{1}{4}$ -inch roller triangle of No. 0 iron, and swivel below first link on one end; a well-shaped malleable hook  $3\frac{1}{2}$  inches long, greatest thickness  $\frac{7}{8}$  inch at other end; links to be properly shaped to receive hooks. Straps 12 inches long, clear length,  $1\frac{1}{4}$  inch wide, riveted on to sides of traces to go over back-strap tugs, front ends riveted on 12 inches from front end of traces, with one No. 8 copper rivet and burr, back end forming a return lap  $2\frac{1}{2}$  inches long, holding  $1\frac{1}{4}$ -inch No. 456 D, riveted on with two No. 8 copper rivets and burrs.

*Two back straps*, 3 feet 4 inches long,  $3\frac{1}{2}$  inches wide, tapering to  $1\frac{1}{2}$  inch at each end to buckle into tugs; layer  $17\frac{1}{2}$  inches long,  $2\frac{1}{2}$  inches wide, rounded at each end, bound with plain black leather, stitched on; four brass  $1\frac{1}{4}$ -inch filled U. S. ornaments on each; with solid leather waved loops, 8 inches long,  $1\frac{1}{2}$  inch wide on top to hold crupper in place, secured at each end to layer and back strap with one No. 10 copper rivet and burr and one of above-mentioned ornaments; pads all in one piece, of soft, smooth, body leather 17 inches long,  $2\frac{1}{2}$  inches wide, filled with goat hair; to have two rows of stitching to form a divide of  $1\frac{1}{4}$  inch in center, secured on bottom of back strap with same stitches that secure the layer on top of back strap.

*Four back-strap tugs and bellyband billets*, 19 inches long,  $1\frac{1}{2}$  inch wide, combined so as to form tugs  $3\frac{1}{2}$  inches long, with  $1\frac{1}{2}$ -inch buckle, wedge, and  $1\frac{1}{4}$ -inch loop stitched in to receive back strap;  $1\frac{1}{4}$ -inch opening, properly wedged at each side, through which traces slide, and bellyband billets 14 inches long; laps 3 inches long, with No. 8 copper rivet and burr through tug and billet laps.

*Two bellybands*.—Heavy single leather, 22 inches long,  $2\frac{1}{2}$  inches wide, with  $1\frac{1}{2}$ -inch buckles and chapes 4 inches long, stitched on each end back far enough to form safes; No. 8 copper rivets and burrs in laps.

*Two breeching bands*.—Bodies, heavy single leather, 3 feet 4 inches long,  $2\frac{1}{2}$  inches wide, with layers 11 inches long,  $1\frac{1}{2}$  inch wide at each end, with  $1\frac{1}{4}$ -inch No. 1 rings stitched in; the return end of layer to extend back on body 4 inches, secured to body with No. 8 copper rivet and burr before layer is stitched on; four hip-strap tugs,  $4\frac{1}{2}$  inches long,  $\frac{3}{4}$  inch wide, with buckle and two  $\frac{3}{4}$ -inch cut loops in each, two of these tugs to be stitched into the breeching rings, and two to be secured with 1-inch No. 454 D's between the layer and body by the regular stitches and No. 10 copper rivets and burrs, 6 inches from end of body.

*Breeching straps*, 2 feet long, 1 inch wide, with buckle and two  $\frac{3}{4}$ -inch loops on each; laps 3 inches long.

*Cruppers or turn backs*, 5 feet long,  $1\frac{1}{2}$  inch wide, with reversed buckle stitched in front end, with lap 3 inches long forming loop; back end stitched into a 2-inch No. 1 ring, with 5-inch lap;  $1\frac{1}{4}$ -inch No. 456 D stitched in middle of lap in front of ring; wedges and No. 8 copper rivet and burr in front and back of D; solid, smooth leather safe, 8 inches long, tapering from  $4\frac{1}{2}$  inches to  $1\frac{1}{2}$  inch wide under the ring and D.

*Hip straps*, 2 feet long,  $1\frac{1}{2}$  inch wide, one end stitched into crupper ring, with 3 rows of stitching; laps  $3\frac{1}{2}$  inches long; other end split 18 inches, to form straps  $\frac{1}{2}$  inch wide, to buckle into breeching tugs.

*Side straps*, 3 feet 6 inches long,  $1\frac{1}{4}$  inch wide; one end stitched into breeching-band ring, reversed buckle stitched into other end, forming loop with  $1\frac{1}{4}$ -inch No. 5 Sargent's snap and slide loop; laps 3 inches long.

*One pair double lines*, 30 feet long, 1 inch wide, with buckles and billets; checks 6 feet long, Warner's japanned loop bar, roller, buckles on back ends of checks; billets to be 9 inches long in the clear, 1 inch wide; loops  $\frac{3}{4}$  inch wide; laps to be  $3\frac{1}{2}$  inches long, secured with three drop stitches in center of each skived end of each lap; two drop stitches at end of each row of stitches at buckles, and at beginning and ending of stitching in laps without buckles; all buckles to be 1 inch except at center of lines, which will be  $\frac{3}{4}$  inch.

*Two neck straps*.—One in every four single sets of harness to be provided with neck strap 3 feet 3 inches long, the other three out of four to be 3 feet 1 inch long; all 2 inches wide, layer  $9\frac{1}{2}$  inches long,  $1\frac{1}{2}$  inch wide, stitched on top 2 inches from point; other end to have 2-inch buckle and  $1\frac{1}{4}$ -inch loop stitched into extended return lap  $6\frac{1}{2}$  inches long, with three rows of stitching 4 inches long, balance of lap to hold neck-chain loop, secured with four No. 8 copper rivets and burrs.

*Two neck chains*, 4 feet 6 inches long, twisted No. 3 iron links, fourteen to the foot, with 2-inch No. 2 iron loop to rivet into neck straps, and swivel 3 inches from loop on one end, a malleable T  $4\frac{1}{2}$  inches long at other end; two  $1\frac{1}{4}$ -inch No. 2 stationary rings, one 20 inches, the other 37 inches from T, and one sliding ring of same size between stationary rings on chains.

## LEAD.

*Two bridles.*—Same as for wheel harness, except they are to be without rein rings and rein straps.

*One pair double lines.*—Same as for wheel harness, except they are to be 54 feet long.

*Two collars,  
Two pairs hames,  
Four hame straps,  
Four traces,  
Two back straps,  
Four back-strap tugs and billets,  
Two bellybands,  
Two neck straps,  
Two neck-strap chains,*

} Same as for wheel harness.

*Two cruppers.*—Bodies 5 feet 6 inches long,  $1\frac{1}{2}$  inch wide, with reversed buckles stitched in front end with lap 3 inches long, forming loops; back ends split 9 inches to form billets  $\frac{1}{2}$  inch wide, to which rolled cruppers are attached with stitched lap  $2\frac{1}{2}$  inches long on one side and  $\frac{3}{4}$ -inch buckle and chape on other; layers 8 inches long,  $1\frac{1}{2}$  inch wide, stitched on top of bodies, so as to form a  $1\frac{1}{2}$ -inch opening 14 inches from ends of crupper billets, properly wedged for carrying straps to pass through; back of this a No. 456  $1\frac{1}{2}$ -inch D is stitched in with wedges, and a No. 8 copper rivet and burr in laps back and front of D.

*Two carrying straps,* 6 feet long,  $1\frac{1}{2}$  inch wide, reversed buckle and two slide loops in each end.

*Two martingales,* 4 feet 10 inches long,  $1\frac{1}{2}$  inches wide, split 18 inches, with billets 9 inches long,  $\frac{1}{2}$  inch wide, with buckles in front end, reversed  $1\frac{1}{2}$ -inch buckles stitched in back end; laps  $2\frac{1}{2}$  inches long.

## WHIP.

*One stock.*—Best quality white hickory, split with the grain (not turned) and neatly dressed; to be 4 feet 6 inches long, 1 inch diameter at butt, tapering to  $\frac{1}{2}$  inch at lash end, with buckskin loop 1 inch wide and  $4\frac{1}{2}$  inches long, wrapped to stock for not less than  $2\frac{1}{2}$  inches with waxed bridle thread.

*One lash.*—Best quality buckskin, eight plait; to be 9 feet long, exclusive of cracker; swell of belly,  $\frac{1}{2}$  inch, gradually tapering toward loop to a diameter of  $\frac{1}{2}$  inch and toward cracker to a diameter  $\frac{1}{2}$  inch; swell to commence 11 inches from loop, its greatest diameter 28 inches from end of loop. Cracker to be not less than 10 inches long, braided 3 inches on lash.

## GENERAL PROVISIONS.

All measurements given are for parts made up, allowance to be made for laps, chapes, etc., all to be made of the best material, the whole to be made in the best workmanlike manner throughout; all leather not otherwise specified to be the best quality No. 1 oak-tanned harness; buckles not otherwise specified to be No. 52 XX japanned, malleable, roller, barrel pattern; rings and D's to be japanned malleable iron; all stitching to be done by hand, eight to the inch, with four-cord (unless otherwise specified) No. 10 thread, well waxed with black wax; the beginning and ending of stitching in all laps to be secured with not less than two drop stitches (additional stitches are required in line laps); on each edge of laps, next to buckles, rings, and D's, two drop stitches are required; straps, billets, loops, chapes, safes, layers, laps, and edges to be neatly edged, blackened, creased, and finished; straps and billets to have proper number of holes punched; points on billets, layers, and straps to be round or pencil-shaped.

Harness to be neatly stamped with name of manufacturer and subject to the usual Government inspection.

## PROPOSAL FOR ———

(Place) ———,  
(Date) ———, 190—.

To the Purchasing Agent Isthmian Canal Commission,  
Washington, D. C.

SIR: In accordance with your advertisement and specifications dated ———, 190—, inviting proposals for ———, and subject to all the conditions and requirements thereof, copies of which are hereto attached, and, so far as they relate to this proposal, are made a part of it. (I or we) propose to furnish and deliver (c. i. f. or f. o. b.) at ——— the articles specified in the foregoing "Schedule" at the price set opposite each.

(I or we) make this proposal with a full knowledge of the kind, quantity, and quality of the articles required, and should (I or we) receive written notice of the acceptance of all, or any part thereof, (I or we) will, if required by the United States, or its legal representative, enter into contract within the time designated in the advertisement, with good and sufficient sureties, for the faithful performance thereof.

(Signature) \_\_\_\_\_  
 (Street and number) \_\_\_\_\_  
 (Post-office) \_\_\_\_\_  
 (State and county) \_\_\_\_\_

### *Guaranty.*

(The guarantor must be a surety company approved by the Isthmian Canal Commission. In lieu of this guaranty a certified check for an amount elsewhere specified may, at the option of the bidder, accompany the proposal.)

The undersigned (name of guarantor), of \_\_\_\_\_, State of \_\_\_\_\_, hereby guarantee that in case the foregoing proposal of (name of bidder) for furnishing \_\_\_\_\_, as above made, be accepted, (he, or they) will within ten days after the receipt of notice of such acceptance execute the required contract for the same and give bond, and with good and sufficient surety, and in case the said (name of bidder) shall fail to enter into such contract and furnish said bond as aforesaid, we guarantee to make good the difference between the offer of the said (name of bidder), and that which may be accepted.

[SEAL.]

\_\_\_\_\_  
 \_\_\_\_\_

[Endorsement on back.]

### *General instructions to bidders.*

[May be applicable in part only to this call for proposals.]

1. (a) Each proposal must be accompanied by either a certified check payable to the order of the chairman, Isthmian Canal Commission, or a proper guaranty, in a sum equal to 10 per centum of the amount of the proposal; the check to be held until the requirements of the proposal shall be complied with and as a guaranty for compliance with the same.

(b) Telegraphic bids can not be considered.

2. (a) The schedule and specifications must not be altered or interlined; any explanations that bidders deem necessary to submit should be typewritten and pasted in connection with the class to which such explanation refers; but any modification of any of the conditions or requirements will be at the risk of rendering the proposal informal, at the option of the Commission.

(b) Samples, cuts, drawings, or blueprints are to be submitted only when specially called for.

3. (a) The unit price must be written in ink.

(b) Tie bids, all others being equal, will be decided by lot.

4. Bids will not be considered for any other quantity or description of supplies than specified; nor for separate items of a class unless there should be no satisfactory bids received for the class as a whole, or the Commission should deem it to the Government's interest to make a modification.

5. The right is reserved to reject any bid for cause, or to reject all bids, if deemed for the interests of the Government; to strike out any item or items in the specifications after notice of intention, and to waive any defect or irregularity not a requirement of law.

6. (a) If more than one bid be offered by any one party, by or in the name of his or their clerk, partner or other person, all such bids may be rejected.

(b) A bidder shall not be interested in more than one bid on the same class.

(c) No bids having nominal or fictitious prices shall be considered.

(d) The Commission reserves the right to reject bids on any article or articles at excessive or unreasonable prices above their fair market value.

(e) Prices bid on all articles or items must be at a fair market value, otherwise the Commission shall be at liberty to reject bids or eliminate items on which prices quoted are either above or below market value.

7. No bid will be considered unless from a manufacturer of, or a dealer in, the article offered.

8. Proposals submitted by a firm must be duly signed in the firm name by a member of the firm. Proposals submitted by a corporation shall be signed with the corporate name, by an officer thereof, and sealed with the corporate seal; if signed by any other person not an officer, evidence of authority shall be appended. Persons signing proposals as "agent" shall also file evidence of authority to do so.

9. (a) Proposals can be withdrawn only on requests received *prior* to the time fixed for opening the same; such requests may be made by wire when necessary.

(b) The Commission will not permit changes in or withdrawal of proposals after they have been publicly opened and recorded; nor can it assume the responsibility of making alterations, changes, or corrections in proposals at the request of bidders, whether such requests are received before or after the bids are opened.

10. Neither the laws nor the regulations make any allowance for *errors*, either of omission or commission, on the part of bidders. It must be assumed that bidders have fully informed themselves as to all conditions, requirements, and specifications before submitting proposals; and they can not be excused or relieved from the responsibility assumed by their proposal on the plea of error.

11. The accompanying specifications, together with these instructions and the conditions of this proposal, will form part of the contract, the same as if incorporated therein.





## ISTHMIAN CANAL.

---

COMMITTEE ON INTEROCEANIC CANALS,  
UNITED STATES SENATE,  
*Washington, D. C., Monday, January 22, 1906.*

The committee met at 2.30 o'clock p. m.

Present: Senators Millard (chairman), Kittredge, Dryden, Hopkins, Knox, Ankeny, Morgan, Taliaferro, Gorman, and Simmons.

### TESTIMONY OF E. S. BENSON, ESQ., GENERAL AUDITOR OF THE ISTHMIAN CANAL COMMISSION.

Mr. BENSON was duly sworn, and testified as follows:

The CHAIRMAN. Mr. Benson, you are the auditor of the Commission?

Mr. BENSON. I have the title of general auditor of the isthmian canal affairs and the Panama Railroad Company.

The CHAIRMAN. You have charge of all the accounts, as I understand it, of the Panama Railroad Company, the Commission, and the canal?

Mr. BENSON. Yes, sir.

The CHAIRMAN. They all come under your general supervision?

Mr. BENSON. Yes, sir.

The CHAIRMAN. Your headquarters are in Washington?

Mr. BENSON. In Washington.

The CHAIRMAN. And have you any assistants in New York and Colon?

Mr. BENSON. Yes, sir; we have a local auditor for the Panama Railroad in New York, one in Colon, who looks after the accounts on the Isthmus, and a local auditor for the canal construction at Panama.

The CHAIRMAN. Where is your auditor at Panama located—at Colon?

Mr. BENSON. He is at the administration building in Panama. I might read the organization of the accounting department as it is arranged, possibly, and give you, perhaps, a better idea of it.

The CHAIRMAN. It would be very well to do that.

Mr. Benson thereupon read as follows:

[Circular No. 15—Executive Committee.]

OFFICE OF THE ISTHMIAN CANAL COMMISSION,  
*Washington, May 16, 1905.*

The following extracts from the minutes of May 8 and 16, 1905, are published for the information and guidance of all concerned:

AUDITING ORGANIZATION OF THE ISTHMIAN CANAL, CANAL ZONE, AND  
PANAMA RAILROAD.

The accounts of the Isthmian Canal Commission, government of the Canal Zone, and Panama Railroad Company will be in charge of a general auditor, located at Washington, who will have full control and full authority in respect to the methods and system of accounts to be followed, and whose jurisdiction shall be exclusive, and shall extend over all departments so far as relates to the accounts of the above organizations.

There shall be the following additional accounting officers: A chief deputy to the general auditor, in charge of the auditing office at Washington, representing the general auditor as occasion may require, and performing such general duties as the general auditor may prescribe.

A local auditor, in charge of the accounts of the Panama Railroad, located at New York.

A local auditor, in charge of the accounts of the Panama Railroad, located on the Isthmus, who shall report to the local auditor in New York. The accounts audited on the Isthmus will be taken up on the books of the New York office.

A local auditor, in charge of the accounts of the Isthmian Canal Commission and the accounts of the government of the Canal Zone, located on the Isthmus of Panama.

The accounts audited on the Isthmus for the Isthmian Canal Commission will be forwarded to the Washington office of the general auditor for incorporation in the reports and exhibits covering the construction of the canal.

The local auditors in charge of the accounts of the Panama Railroad and the local auditor of the Isthmian Canal Commission and government of Canal Zone are subject to the jurisdiction and instructions of the general auditor in all matters pertaining to the duties of their offices.

Original record of accounts of the government of the Canal Zone will be kept on the Isthmus, and duplicate records of all transactions in relation thereto will be kept in the office of the general auditor at Washington.

All accounts of the Isthmian Canal Commission, whether audited in Washington or on the Isthmus, will be sent to the Treasury Department through the Washington office. Necessary duplicates will be retained in the office of the general auditor.

A comprehensive system of bookkeeping and accounting methods in line with existing laws will be adopted for the construction of the Isthmian Canal.

An accounting system for the government of the Canal Zone will be provided, fashioned after that of the government of the Philippine Islands, so far as practicable.

## BUREAU OF MATERIAL AND SUPPLIES.

There shall be a chief of bureau in charge of the handling and disbursing of all material and supplies for the construction of the Isthmian Canal and for the sanitation and government of the Canal Zone.

The bureau of material and supplies to be under the jurisdiction of the head of the department of construction and engineering. There shall be a separate storekeeper in charge of the handling and disbursing of supplies for the department of government and sanitation, who shall be appointed upon the recommendation of the head of that department.

The bureau of material and supplies and all storekeepers will be subject to the control and instructions of the general auditor in respect to the proper accounting for material and supplies.

## TIME-KEEPING BUREAUS.

Time-keeping bureaus will be organized on the Isthmus, under the jurisdiction of the chief engineer, covering labor employed in the construction of the Isthmian Canal, and under the governor of the Canal Zone covering labor employed for sanitation and government of the Canal Zone. Rules and regulations for the proper keeping of time of employees will be prescribed and enforced by the general auditor.

## DUPLICATE ACCOUNTS.

Vouchers, pay-rolls, and accounts-current covering all transactions of the Isthmian Canal Commission and the government of the Canal Zone shall be taken, when practicable, in sufficient numbers to afford a complete file of original papers for the general auditor at Washington, and another for the local auditor on the Canal Zone, in addition to the copies required by the Auditor for the War Department and those desired by the disbursing officer for his files. The general auditor is authorized to exercise reasonable discretion in regard to securing original papers for these purposes. Whenever, in the opinion of the general auditor, it is impracticable or inexpedient to obtain all papers in quadruplicate, he is authorized to substitute therefor other copies, properly authenticated, including certified abstract and impression copies of abstracts and vouchers.

The general auditor's office, at Washington, and the office of the local auditor on the Canal Zone shall be prepared at all times to furnish on authorized request complete data concerning the fiscal affairs under the control of the Isthmian Canal Commission, and to this end each office shall be provided with properly authenticated abstracts and vouchers, as provided in the preceding section, covering all settlements made by the other office, and shall retain permanently in its files full and exact copies of all settlements made within these respective offices.

THEODORE P. SHONTS,

*Chairman Isthmian Canal Commission.*

---

(During the reading of the above-mentioned paper Mr. Benson referred to the following sentence contained in said paper: "The bureau of material and supplies to be under the jurisdiction of the

head of the department of construction and engineering," and the following occurred:)

Mr. BENSON. That has since been changed.

The CHAIRMAN. How is it now?

Mr. BENSON. It is under the chairman of the Commission, the administration department. The head of that division on the Isthmus reports to Mr. Ross in respect to the fiscal part of his work. As to the accounting features he reports to me.

The CHAIRMAN. Where were you employed, Mr. Benson, before you came to the Commission?

Mr. BENSON. I was auditor of the Southern Pacific lines east of El Paso, known at the "Atlantic system," was in immediate charge of the accounts of four of the corporations at Houston, Tex., and had general supervision over all lines east of El Paso.

The CHAIRMAN. Where were you prior to that?

Mr. BENSON. I was deputy and general auditor for the Oregon Railroad and Navigation Company at Portland, Oreg., for ten years.

The first thing that confronted me on my arrival at Washington was to organize the office. While there was the nucleus of an office here—

Senator GORMAN. When did that begin?

Mr. BENSON. April 27 I arrived here. As I stated, while there was a nucleus of an office there was no system of accounts in operation or in existence, and for two months it required all of our time to devise forms and instructions to get an intelligent system of accounting started, which we inaugurated on July 1. In the meantime, the accounts were run along under the system that was in vogue, although the general books of the new Commission were opened as of the date of the appointments, April 3, 1905. There really were no general books of the old Commission to speak of outside of the record of vouchers which was kept and accounts of the disbursing officer. The organization of an accounting office on the Isthmus had my early attention. We selected a man of railroad experience in accounting matters as the local auditor, a man named W. B. Starke, who had the training of the Southern Railway here in Washington.

At the time of his appointment he was auditor of the Atlantic and North Carolina Company, at Goldsboro, N. C. We also, with the approval of the Civil Service Commission, selected a number of experienced railroad accountants for the staff on the Isthmus, it being apparent that we could not in a formative stage secure competent help from the classified service to enable us to go ahead and have an organization at the start that would give satisfactory results. The Civil Service Commission, whom I interviewed on that subject a number of times, appreciated the situation, and allowed us to make certain selections, with their approval, without examination. In that way we have secured a very efficient organization on the Isthmus for the accounting division, and while the results so far have not been as prompt in respect to the rendering of accounts as they will be, we have done, I think, a great deal better than some people might think.

The situation on the Isthmus at the time the present Commission took hold, as you all must know, was somewhat chaotic. The accounting end of it, at least, had been very sadly neglected. The

old Commission undertook to inaugurate a local accounting office. They appointed a man named West, out of one of the Government Departments here, who went to the Isthmus some time in February. He was taken with the yellow fever soon afterwards, however, and died down there. He only took with him some half dozen men, and there was very little done by them in respect to accounting.

I can probably give you a better idea of what has been accomplished in the accounting division if I may read from my report to the chairman of the Commission of the date of October 17, covering the year ending June 30, 1905.

Senator SIMMONS. I was not in the committee room when you began. Do I understand that you started a new system altogether when the new Commission came in?

Mr. BENSON. Yes, sir.

Senator SIMMONS. Your accounting does not embrace, then, anything that transpired before you came in?

Mr. BENSON. We opened a new set of books. We brought over into the books of the new Commission the transactions of the old Commission, so that our exhibits bring down the record of the work from its inception.

Senator SIMMONS. But you do keep separate the transactions of the old and the transactions of the new Commission?

Mr. BENSON. Yes; we made that division as of April 1.

Senator SIMMONS. I wanted to understand that. I was not here when you began your statement.

The CHAIRMAN. What do you propose to read from?

Mr. BENSON. My report to the chairman of the Commission.

The CHAIRMAN. Of what date?

Mr. BENSON. October 17, 1905.

The CHAIRMAN. Very well. Go ahead.

(Mr. Benson thereupon read the following report:)

ISTHMIAN CANAL COMMISSION,  
OFFICE OF GENERAL AUDITOR,  
Washington, D. C., October 17, 1905.

SIR: I have the honor to submit herewith a preliminary report of the fiscal affairs of the Isthmian Canal Commission for the year ending June 30, 1905, as covered by the following exhibits:

Balance sheet to June 30, 1905.

Exhibit A. Statement of miscellaneous receipts from all sources.

Exhibit B. Summary of expenditures in all departments.

Exhibit C. Detailed statement of general department of administration expenditures.

Exhibit D. Detailed statement of department of government and sanitation expenditures.

Exhibit E. Detailed statement of department of construction and engineering expenditures.

The distribution of expenditures will be in some cases further elaborated as soon as information asked for from departments on the Isthmus can be obtained, whereby may be shown charges to new equipment, covering the expenses of setting up and getting new equipment and machinery ready for operation, construction of new buildings, and other similar items now shown only upon the basis of the original outlay.

Included in the statement of department of administration expenditures appears amount paid out for material and supplies purchased and manufactured, also cost of purchase, handling, and transportation of material and supplies. The amount of material issued by the division of material and supplies to the different departments on requisitions has not yet been reported by that division. Pending the receipt of this information, the total expenditures for account of the respective departments can not be shown, the total report of expenditures being confined to salaries and wages, contingent and other expenses, and such furniture, materials, and equipment as was distributed direct to the work for which purchased on original vouchers and not handled through the division of material and supplies.

The organization of the division of accounts, as created by the Commission, provides for a general accounting office at Washington and a local accounting office on the Isthmus. A general division of the work is arranged so that to the Washington office is reserved the promulgation of all orders and regulations concerning the methods of accounting and the settlement of all accounts for services rendered and for material and supplies purchased in the United States. To the office of the local auditor are assigned all matters relating to the settlement of accounts for services rendered and for supplies purchased on the Isthmus, the inspection of time keeping, the property accounting, and the settlement of the accounts of revenues of the Canal Zone government and of expenditures from these funds.

There have been promulgated with the knowledge and approval of the chairman:

An outline of accounting methods in detail providing a double entry system of bookkeeping; provided records for the offices of the general auditor at Washington and the local auditor on the Isthmus; for writing and exchanging journal vouchers at the close of each month; for each office to write up its journal at the close of the month from vouchers prepared therein, followed by vouchers certified by the other office (a balance sheet drawn from the books of one office, under this system, compared with that drawn from the books of the other office will be found in exact accord in every detail); providing further, for the audit of all accounts consistent with the orders of the Commission and the requirements of the Treasury Department in advance of actual settlement by collecting and disbursing officers; providing a classification of accounts and distribution of receipts and expenditures by departments and bureaus as to administration expenses, and by classes of work of construction, engineering, and sanitation.

The circular of the chairman defining accountable property and requiring all officers and employees of the Commission to faithfully care for all property in their possession or under their charge.

Methods of timekeeping, the preparation of pay rolls and payment of salaries and wages, outlining in detail a complete system of timekeeping and payments, and providing adequate safeguards in computing and expeditious and safe methods in payment of all classes of employees.

A full and detailed accounting system for the government of the Canal Zone, providing for the prompt deposit of revenues, the payment of obligations, rendition of accounts, and the settlement thereof by the auditing officers.

In cooperation with the general purchasing officer there has been prepared the chairman's Circular No. 17, being rules governing the purchase, delivery, and issuing of, and the accounting for, material and supplies. This order provides in full detail the manner of making requisitions, specifications, and purchases; of forwarding, inspection, survey, and acceptance; for the custody and care of supplies; for issuing, invoicing, and accounting for material and supplies; for handling articles manufactured or repaired at shops; for disposing of scrap, damaged and worthless material, and for inventory of all property and material of the Commission wherever situated, and proper adjustment of the accounts.

At its meeting of April 3, 1905, the Commission adopted the following resolution:

That the books of account of the Commission at the Panama and Washington offices be promptly balanced as of this date and that the books, vouchers, and records of the Commission up to this date be carefully identified and preserved for reference in the future, but that the transactions of the Commission as newly constituted be not entered therein but be entered in an entirely new set of books of account, and that the records thereof be separately kept and preserved, so that the proceedings of the Commission as constituted can be readily and conveniently distinguished and accounted for independently of each administration.

In pursuance of this direction, there have been opened proper books of account in which have been brought over the balances in the accounts of the preceding Commission as follows:

Amount expended for rights of the New Panama Canal Company ..	\$40,000,000.00
Amount expended for territorial rights in Canal Zone.....	10,000,000.00
Amount expended to April 1, 1905, from the appropriation of June 28, 1902, for a "Canal connecting the Atlantic and Pacific oceans" ..	1,977,686.40
Balance April 3, 1905, to the credit of the appropriation of June 28, 1902 .....	7,426,568.27
From the balance to the credit of the appropriation April 3, 1905, should be deducted amounts paid for account of prior Commission ..	788,371.51
Net funds available for this Commission .....	6,638,196.76
Balance of funds in the hands of the collecting and disbursing officers.	615,803.21

The balance of material and supplies in the hands of the chief of the division of material and supplies, Isthmus, can not now be determined, as heretofore explained, but will be reported later.

By reason of the necessity of carrying to a conclusion all settlements unadjusted on April 1, 1905, there has been maintained a separate account in all details of transactions relating to the former Commission liquidated after April 1, 1905, and of accounts created by the present Commission.

Forms of books and blanks have been prepared to the number of some 125, embracing an entire set of general books, a set of abstracts and reports, various vouchers, time books, time and pay-roll blanks, identification certificates, time vouchers, classification and distribution sheets, bills for collection, certificates of settlements, inspection reports, requisitions for material, supplies, stamps and stamped paper, licenses, registers for courts, hospitals, and land offices. Other forms will be prepared as needed to carry out the proposed accounting system.

In February, 1905, an attempt was made to establish a local accounting office on the Isthmus, Mr. R. R. West being appointed deputy auditor. Owing to his early demise from yellow fever, and to the insufficient force, without properly devised accounting methods, there



was very little accomplished. The present local accounting organization on the Isthmus, headed by Mr. W. B. Starke, local auditor, was made effective on July 1 last. Mr. Starke is building up an efficient organization, which is fully cooperating with other divisions and departments in carrying out the accounting system which has been adopted by the Commission.

On the 16th day of August, 1905, I had the honor to recommend to you that effort be made to secure from the Congress at its next session certain legislation for the economical and satisfactory handling of accounting methods. I now have the honor to renew the recommendation, and trust that this much needed authority may be granted.

All of which is respectfully submitted.

E. S. BENSON,  
*General Auditor.*

The CHAIRMAN, ISTHMIAN CANAL COMMISSION.

That was in connection with allowing us to make deductions on our pay rolls for the board of our employees, and the value of commissary books furnished our employees that are honored by the Panama Railroad commissaries, and also to credit back to our appropriation such sums as we might collect from outside sources, like rentals of lands; or in case we performed work for the Panama Railroad, which we do, and collect from them for the value of it, to have that revert to our appropriation instead of turning it in to the United States Treasury as miscellaneous receipts, as we are now doing under the law.

The CHAIRMAN. Proceed, and state to the committee what you can in regard to the matters there and here. We would like to have you finish your statement, and then each member of the committee, as he feels inclined, will ask you questions in connection with this subject.

Mr. BENSON. We put in effect the system of accounting which we had devised in practical working order on July 1. The first matter of importance which had our attention, and one of the matters of the greatest importance, was an effective time-keeping system. We devised blanks and a system for that purpose, and it was put into effect, the idea being that we wanted to feel that the moneys that we were paying out for labor were, as far as possible under any system, properly earned.

Our system provides for the keeping of time by the foremen and the turning in of his time books daily to a central office for each division, where the time is transcribed onto time rolls, and on alternate days a different book is issued to the foreman. At the end of the pay period, which with our silver rolls is twice a month, on the 15th and last day of the month, the roll is completed by the division office and forwarded to the local auditor at Panama where the account is audited by him, and pay certificates are issued showing the amount of indebtedness due each employee and turned over to the disbursing officer for payment. The gold rolls are handled in the same manner, except that they run for a month instead of semimonthly. There has been a good deal of complaint, or had been, and there may be some yet about the delay in paying our men. We are to-day, however, paying our men on the Isthmus more promptly at the close of the pay period than any railroad in the United States that I have any knowledge of. We find that those black laborers are very im-

provident, and would like to have a system whereby they could receive their money daily.

Senator GORMAN. Do you have charge of the pay? Do you pay?

Mr. BENSON. It is done by the disbursing officer.

Senator GORMAN. Is that in your department?

Mr. BENSON. I prescribe the system for keeping the time and preparing the pay rolls, and getting them in shape to turn over to the disbursing officer for payment.

Senator GORMAN. You have nothing to do with the payment?

Mr. BENSON. No, sir. Of course, the promptness of the payment depends largely on the prompt turning over to the disbursing officer of the certified pay rolls ready for his use.

The CHAIRMAN. About how long is it after he receives these rolls that the people are paid on either the silver or the gold rolls?

Mr. BENSON. I should say after he receives the rolls he begins paying almost immediately—within a day or two, or three days at the outside; and he is required, or allowed to verify the correctness of the accounts as far as he is able.

The situation on the Isthmus in respect to the material and supplies division has not been satisfactory. It is getting more so, now, very rapidly. There has been a congestion of the receipt of material on the Isthmus which prevented the prompt receipt for the material by the chief of that division, and the transmittal of the invoices to the Washington office for payment. We got very much behind in the payment of our accounts, for the reason that we had no acceptance from the Isthmus of the receipt of the material. That condition is very largely relieved now, and it is only a matter of a very short time before the receipt of the material will be acknowledged, I think, with sufficient promptness to enable us to pay all our bills at least within sixty days, and in some instances within thirty days after the shipment of the material from the United States.

The distribution of the material on the Isthmus to the departments that use it is done on requisitions. I have here a circular, which was referred to in my letter to the President, Circular No. 17, which covers the purchase and handling of and the accounting for material. It is a very complete and exhaustive exhibit of what our methods are.

Senator MORGAN. What class of material is to a large extent concerned in this congestion that you spoke of?

Mr. BENSON. I do not think it was any special class. It was almost everything that was shipped from New York. All classes of material would accumulate, and not be promptly moved or gotten down to the work that was being done.

Senator MORGAN. Was there any such congestion as to material that came down the Pacific coast.

Mr. BENSON. It is mostly lumber that comes down there.

Senator MORGAN. That is what I want to get at.

Mr. BENSON. I know when I was on the Isthmus last summer there were, I think, two vessels there unloading, or one was unloading and another was waiting to get a berth; and they were loaded with lumber. There has been a great deal of lumber received from the Pacific northwest.

Senator MORGAN. That was in August?

Mr. BENSON. Yes, sir.

Senator MORGAN. Two vessels were unloading. Were there any other vessels that came in before they got unloaded?

Mr. BENSON. I could not say. I do not know as to that.

Senator MORGAN. You do not know whether there were any other vessels under way at that time loaded with lumber?

Mr. BENSON. No, sir; I do not.

Senator MORGAN. Did you see, personally, the evidences of the congestion you spoke of at the Pacific port?

Mr. BENSON. No; I did not.

Senator MORGAN. You did not examine that?

Mr. BENSON. Because there were no supplies received there outside of lumber.

Senator MORGAN. Outside of lumber?

Mr. BENSON. Outside of lumber.

Senator MORGAN. Then, this congestion which took place at that port was occasioned by the large shipments of lumber?

Mr. BENSON. That might have caused some congestion. I do not know that it interfered, however, with the movement of South American and Pacific mail—

Senator MORGAN. I do not go into that. What I want to know is whether the congestion was produced in any part, and to what extent, by shipments of lumber down that coast.

Mr. BENSON. I could not say. I would not be able to tell you that.

Senator MORGAN. You did not personally examine that?

Mr. BENSON. No, sir; I did not.

Senator MORGAN. That is all.

Senator HOPKINS. You were speaking about an order when you were questioned. That order relates to what, did you say?

Mr. BENSON. This is the order providing a method of purchasing and inspecting and accounting for material and supplies.

Senator DRYDEN. I suppose that will be made a part of the record?

The CHAIRMAN. Yes; I think it had better be made a part of the record. It will be well to let it go into the record to-day.

[Circular No. 17, Chairman.]

ISTHMIAN CANAL COMMISSION,  
*Washington, D. C., August 1, 1905.*

The following rules will govern the purchase, delivery, and issuing of and the accounting for material and supplies:

PURCHASES.

The general purchasing officer will purchase goods in accordance with the rules laid down by the Commission, and so far as supplies for the Isthmus are concerned no purchase will be made except on properly approved requisitions made by the chief of the division of material and supplies. Requisitions for supplies for use by the Commission in the United States will emanate from the office needing such supplies and shall bear the signature of the proper official.

The general purchasing officer shall buy the quantities of articles as may be stipulated on the requisitions following as far as possible the specifications and description given; and if the occasion requires the exercise of discretionary measures will confer with proper official in relation thereto.

The general purchasing officer shall be charged with the issuing of necessary instructions to insure delivery in accordance with specifications and time requisitions, and shall keep a careful record of all requisitions and their disposition, of all contracts made and quantities supplied under said contracts, and all other information necessary for or pertinent to the duties of his office.

On receipt of requisitions, the same shall at once be given a number by the general purchasing officer, and date of receipt marked on same. Records shall be kept which shall also show the various progressive steps taken in each and every case before final shipment is effected.

In ordering goods or awarding contracts for Isthmus requirements on a f. o. b. United States ports basis, the general purchasing officer shall prepare seven copies of such orders, and they shall be disposed of simultaneously, as follows:

First copy for sellers.

Second and third copies for general auditor.

Fourth copy for files of general purchasing officer.

Fifth copy for chief of division of material and supplies.

Sixth copy for forwarding agent at point where shipment has to be effected.

Seventh copy for inspecting engineer.

On ordering goods or awarding contracts for Isthmus supplies on a c. i. f. basis, the general purchasing officer shall prepare seven copies of such orders, and they shall be simultaneously disposed of, as follows:

First copy for sellers.

Second and third copies for general auditor.

Fourth copy for files of general purchasing officer.

Fifth copy for chief of division of material and supplies.

Sixth copy for forwarding agent at point where shipment has to be effected.

Seventh copy for inspecting engineer.

On ordering goods or awarding contracts for supplies to be used in the United States office of the Commission, the general purchasing officer shall prepare five copies of such orders, and they shall be simultaneously disposed of, as follows:

First copy for sellers.

Second and third copies for general auditor.

Fourth copy for general purchasing officer.

Fifth copy for department where requisition originated.

Accompanying all orders, careful instructions will be sent by general purchasing officer to sellers for proper rendering of invoices, marking of packages, shipment of goods, and the preparation of shipping lists; and, as far as practicable, special forms shall be supplied for the making of invoices and shipping lists.

#### DELIVERY OF SUPPLIES.

All goods shipped to the Isthmus shall be marked "I. C. C.," with the port of destination and a number corresponding to that given on the original requisition by the material and supplies division and that given by the general purchasing officer.

In the event of supplies being purchased f. o. b. at United States ports, shippers will be instructed to furnish six copies each of shipping lists and invoices to forwarding agent at point where shipment

is to be effected, who, on shipment being effected, will O. K. shipping lists, secure necessary bill of lading, and distribute documents as follows:

Two copies of shipping lists, invoices, and bills of lading to division of material and supplies at Isthmus.

Three copies of shipping lists and invoices to general purchasing officer, who will make record of same and transmit them to general auditor.

One copy of invoice, shipping list, and bill of lading for files of forwarding agent.

Care will be taken that all documents accompany actual shipments.

In the event of supplies being purchased c. i. f. (Isthmus ports), shippers will be instructed to prepare, for the purpose of the Isthmian Canal Commission, bills of lading, shipping lists, and invoices in quadruplicate, and to forward same to division of material and supplies on Isthmus.

Shippers shall be advised that required documents must in every case accompany or anticipate shipments.

For supplies purchased for use in the United States office of the Isthmian Canal Commission, sellers will be instructed to forward invoices in quadruplicate with the goods, and, on careful inspection by a party deputed for that purpose by the general purchasing officer, and on being found in order, the original, duplicate, and triplicate invoices will be, after proper certification, forwarded to the general auditor.

Immediately on a charter party being made, copy of same shall be forwarded to the chief of the division of material and supplies and to the general auditing division.

#### ASSISTANT PURCHASING AGENT ON ISTHMUS.

As the title indicates, this official shall be subordinate and subject to the orders of the general purchasing officer.

The same general rules that govern the general purchasing officer shall serve to guide the assistant purchasing agent on the Isthmus.

On purchasing supplies, he shall instruct sellers to put such marks and numbers on their goods as may be necessary for identification purposes, and, on receiving receipt from consignee, shall prepare proper voucher, to which the receipt in question and other proper papers shall be attached, and such voucher shall be forwarded to local auditor through the chief of the division of material and supplies.

He shall also keep records which shall show all the operations in his office.

#### ASSISTANT PURCHASING AND FORWARDING AGENTS IN THE UNITED STATES.

As their titles indicate, these officials shall be subordinate and subject to the orders of the general purchasing officer.

They shall be charged with attending to the supervision of the filling of all orders sent them.

They shall compare marks and condition of all packages forwarded by them, and shall carefully report to shippers, as well as to the general purchasing officer, any exceptions thereto.

Shippers of goods purchased on an f. o. b. basis shall be required to forward to the respective forwarding agents six copies each of the shipping lists and invoices. On shipments being effected, the forwarding agents will O. K. shipping lists, secure necessary bills of lading, and distribute the documents as heretofore provided.

Each forwarding agent shall keep records which shall show all the operations of his office and of shipments made, so that any unexecuted orders can be seen at a glance and information readily given as to all operations.

If an assistant purchasing agent shall be entrusted with the purchase of supplies, he shall be guided by the same rules as govern the general purchasing officer.

#### CUSTODY AND ISSUE OF MATERIAL AND SUPPLIES.

The custody, transfer, and issue of all supplies and the records of all property in store and unissued on the Isthmus of Panama belonging and pertaining to the Isthmian Canal Commission shall be under the supervision of the general purchasing officer.

In the Canal Zone, Isthmus of Panama, there shall be an officer known as the chief of the division of material and supplies, who shall, under the direction of the general purchasing officer, have charge of all supplies and material and manufactured articles in store and unissued. His office shall be at Colon.

All supplies purchased with moneys appropriated for the construction of the Isthmian Canal shall be deemed to have been purchased for the Isthmian Canal Commission, and not for any department thereof, and these supplies, together with all supplies on hand, shall be arranged, classified, consolidated, and issued for consumption and use under such regulations as the chairman of the Isthmian Canal Commission may prescribe, without regard to the department for which purchased.

Medicines and articles of hospital equipage are exempt from this regulation.

Care must be exercised that supplies in store especially adapted to particular uses shall not be drawn indiscriminately nor used for work in which material of a lower grade and less value can be utilized with equal advantage.

Not more than a six months' supply of materials shall be carried.

All blank forms for use in accounting for material and methods to be followed in respect thereto, both as regards office records and reports required by accounting division, shall be prescribed by the general auditor or local auditor, the local auditor or his representative to have access to all records of the division of material and supplies as occasion may require.

The chief of the division of material and supplies shall acknowledge to the general auditor the receipt of all goods and supplies received from without the Zone, and shall acknowledge the receipt of purchases within the Zone to the local auditor, and exceptions as to shortages and condition of material shall be noted, in order to insure the proper auditing of the account.

The chief of the division of material and supplies shall not give a receipt for articles delivered into his custody by contractors until furnished with invoices in duplicate, which shall be complete descriptive

lists of the articles claimed, one receipt to be signed and returned to the party delivering the articles, and the other to be retained.

No supplies delivered by contractors shall be received unless marked and distinguished with the name of the contractor furnishing the same.

All invoices of goods purchased for the material and supplies division shall be entered in prescribed records.

Stock cards shall be kept by the material and supplies division showing the amount of stock in each and every storehouse, and each storekeeper will keep stock cards showing all stock on hand in the warehouses over which he may have supervision.

The names and signatures of all officers and employees authorized to sign requisitions must be filed with all storekeepers, the chief of the division of material and supplies, and the local auditor, such signature to be verified by the head of the department authorizing the same.

Officers and employees making requisitions for material and supplies must, on receipt of same, check them carefully with the triplicate copy of requisitions in their possession, noting thereon, as well as on the receipt which they will be required to give, any exceptions thereto and the actual date of receipt.

The material and supplies delivered by the material and supplies division to other departments and bureaus on the Isthmus shall be covered by invoices and receipts in duplicate. The forms shall contain a statement of the articles delivered, the inventory cost, the percentage to cover cost of purchase, handling, and delivery, and the total amount with which the receiving department or bureau is chargeable. Such invoices or receipts shall be dated to show the respective dates of the invoice or receipt of the property. One copy shall be retained by the officer with whom the invoices or receipts are exchanged and one copy of each sent to the auditor, with abstracts prepared at the close of each month, as a voucher for charging the receiving department or bureau, for the credit of the material and supplies division and the account of the cost of purchase, handling, and delivery of supplies, respectively, in settlement of the account. The two invoices and two receipts will be prepared by the division of material and supplies, and the invoices will be signed by the chief of that division and transmitted to the auditor as aforesaid, together with the receipt for the property, which will be secured by the division of material and supplies from the receiving bureau.

#### REQUISITIONS MADE ON MATERIAL AND SUPPLIES DIVISION.

No material or supplies will be delivered except on properly approved requisitions.

All requisitions for material and supplies must be addressed to storekeepers on proper forms, specially devised for the purpose, and must state thereon the exact use for which the requisitioned supplies are needed. Requisitions must be made in triplicate, signed by the maker thereof, and, before being forwarded to the storekeepers, must bear the signature of the proper officer. The original and duplicate requisitions will be forwarded to the storekeepers, while the triplicate will be retained, in file form, by the maker thereof. All requisitions will be numbered consecutively by the office originating same.

Stub requisitions shall be receipted by the person to whom the material is actually delivered, and be regarded as the itemized invoices

covering the material delivered to the various departments or bureaus. There shall be compiled in the office of the chief of the division of material and supplies summaries in duplicate of stub requisitions and invoices, as follows:

Of stub requisitions, at the end of each month, a summary stating the total value of the material under each class issued during the month, as shown by the totals in "Record of stub requisitions by classes."

Of store invoices, at the end of each month, the value of stores issued under each class during the month, as shown by the totals in "Record of store invoices."

Separate summaries shall be made for each department concerned.

Stub requisitions and store invoices shall be carefully compiled by the heads of departments or divisions for the verification of summaries when received. Summaries shall be forwarded to the auditor with the monthly balance sheets as the vouchers of expenditures pertaining to stores covered by the summaries.

In case material is diverted from the use for which it was originally intended, as shown by requisition or invoice, which is the basis for charge to expenditures, notice must be given to the local auditor, giving full reference to original stub requisition or invoice, showing for what use material was originally drawn and to what use it was finally put.

#### ARTICLES MANUFACTURED.

Invoices of articles manufactured by the various departments or divisions shall, so far as practicable, be condensed into one monthly invoice for each department or division. This practice shall not preclude the rendering of a memorandum invoice with each delivery of manufactured articles to the storekeeper, which is necessary in order that he may be enabled to make immediate expenditure invoices, if required.

When manufactured articles are invoiced to storekeepers by means of memorandum invoices, the total amounts under each class shall be covered at the end of each month by summary in duplicate. This summary of manufacturer's invoices shall be similar to the summary used by the chief of the division of material and supplies to cover issues to various departments.

All expenditures of supplies shall be at an average price, determined by dividing the total value of the supply on hand of any articles by the total quantity thereof, and a new price shall be established upon the receipt of an invoice of the article.

All articles manufactured in the various departments or divisions and approved by the head of the department or division to which they pertain shall be turned into the division of material and supplies for store.

Blanks, books, etc., made by the printing office, and articles manufactured at shops, will be handled on shop orders or requests for manufactured articles. Any balance in the account of various shops and printing office at close of the month will consist of material in the course of manufacture. A detail list of uncompleted orders, with cost thereof, will be furnished the local auditor monthly.



### SCRAP MATERIAL.

Departments originating scrap material will turn it over to the material and supplies division at stated periods, accompanied by an invoice in duplicate, at prices to be fixed by the general purchasing officer, one copy of invoice, receipted by the chief of the material and supplies division, to be forwarded to auditor as basis for charge against the material and supplies division and credit to the department originating the scrap. Care should be taken to show on the invoice from what source scrap was received—that is, from locomotives, cars, track, etc.

Scrap metal used in foundry should be drawn from material and supplies division on stub requisition, as is other material, and the value of same included in cost of castings.

### RECORD OF MATERIAL AND SUPPLIES.

Material and supplies received shall be entered in a "Record of material received," such record to show date of receipt, source of supply, and all details, including exceptions, if any.

Record of material received shall be checked against the invoices for such material; any exceptions in respect to shortages, condition of material, etc., shown on the record to be noted on invoices, which shall have recorded thereon reference to the folio, together with the acceptance of the department receiving the material, and forwarded to the chief of the division of material and supplies.

On the delivery of supplies by storekeeper to a department's representative or to the railroad or other carrier for shipment, a shipping receipt, specifying the number of packages, will be taken (in duplicate), one copy to be mailed to the department or division ordering the material and one copy retained by the store furnishing the supplies, reference being made thereon to requisition covering.

Property delivered by one storekeeper to another storekeeper in the same department will be reported by the delivering and receiving storekeepers the same as property received from and delivered to other departments or divisions, except that invoices may omit values, and will be covered by shipping receipts. The chief of material and supplies division will keep proper record of such transfers, but will not certify the invoice and receipt to the auditing division.

In addition to the books of record, each class of material and supplies shall have especially prepared cards on which storekeepers shall record all receipts, deliveries, and corresponding stock on hand. The object of such cards is to show at a glance the quantity of any one article on hand at any one storehouse or deposit, and to facilitate the checking of actual goods on hand by the inspectors who will be detailed for this duty.

Storekeepers will transmit to the chief of the material and supplies division daily requisitions filled by them, such requisitions to be listed on the form of transmittal bearing a stub receipt, which will be signed by the chief of the material and supplies division and returned to the storekeeper.

Debit entries for supplies received and credit entries for supplies delivered, as well as proper debit and credit entries for supplies transferred between stores, should be made daily on stock cards by the chief of material and supplies division, as well as by storekeepers.

## PROPERTY RECORDS.

Property books shall be kept by all departments and divisions, and therein shall be recorded all transactions relating to material and supplies. Suitable books of record to serve as checks shall be kept in the local auditor's office.

The chief of the division of material and supplies shall keep a record of—

Requisitions received.

Requisitions executed.

Requisitions made on general purchasing officer or assistant purchasing agents.

Requisitions filled by general purchasing officer or assistant purchasing agents.

Material and supplies received, with values.

Material and supplies delivered, with values.

Material and supplies on hand, with values.

thereby centralizing in his office all details in connection with the purchase, reception, and delivery of materials and supplies.

The division of material and supplies on the Isthmus shall afford every facility to the heads of departments or divisions for obtaining information and examining supplies on hand.

In accordance with resolution of the executive committee, material received from the New Panama Canal Company, until such time as a complete inventory may be made, will be taken into the accounts of the Isthmian Canal Commission only as used, at a price equal to 50 per cent of the cost of new material of the same quality, except that scrap metal shall be taken up as used at current prices of scrap metal, less cost of preparing it for use; scrap metal sold to be taken up at sale price. Cost of new material and price of scrap material to be fixed by general purchasing officer. Inventories of materials other than French stock will be taken on September 1, 1905, and in future at close of each fiscal year, June 30, and at such other periods as the general auditor may desire.

## STOREKEEPERS.

Storekeepers will be subordinate and subject to the orders of the chief of the division of material and supplies, and shall be chargeable, through the account of the chief of the division of material and supplies, with all material and supplies in their possession or under their care.

Storekeepers shall be charged with the ordering, through the division of material and supplies, of supplies for stock purposes, reception and delivery of material and supplies in the storehouses of which they are in charge, and of keeping a careful record of all operations incidental to same.

If the storekeepers on whom requisitions are made do not have on hand the supplies called for, they will at once communicate with the chief of the division, who will inform them if any other storehouse on the Isthmus can fill the order. If, however, the goods called for are not on hand, but must be purchased, the requisitions will be forwarded by the storekeeper without delay to the chief of the division of material and supplies, who will advise the maker thereof the disposition of same.

If only a part of a requisition can be filled by a storekeeper, and the remainder has to be obtained from another store or purchased, the unfilled part of the requisition should be canceled on storehouse on which drawn, provided some other storehouse can fill the requisition; otherwise requisition should be made on chief of division of material and supplies in the manner provided for in ordering stock supplies, and the requisition, held in the meantime, will be filled when the material is received.

Supplies received by storekeepers shall be accompanied by an invoice (in duplicate), prepared by direction of the proper official of the department or division making the delivery, and thereon shall be stated clearly the quantity, dimensions, and full description of the supplies delivered. After careful inspection and examination the storekeepers shall, in a space provided for this purpose, acknowledge upon the original and duplicate invoices the receipt of supplies thereon indicated, and note carefully any exceptions thereto. The receipted original invoice shall be forwarded immediately to the chief of the division of material and supplies for proper disposition.

Storekeepers will be held strictly responsible for all material in their possession and charge, and shall take all precautions against damage of the stores under their charge by insects, dust, dampness, light, and all other causes of deterioration that can be guarded against. They shall promptly report any articles of stock missing or unaccounted for in any way.

On the first Wednesday of each quarter they shall submit a detailed list of all surplus, obsolete, or worthless articles in their stock, so that proper steps may be taken to dispose of the same.

#### INVENTORIES BY STOREKEEPERS.

When storekeepers are not otherwise employed they shall cause an inventory of their stock to be taken, this inventory to be taken by clerks. As the stock of each item is taken, the result shall be immediately compared with the stock tally card and then, together with the stock tally cards, compared with the stock ledger accounts in the office of the chief of the division of material and supplies.

Discrepancies shall be carefully investigated by the chief of the division of material and supplies, and deficiencies which can not be reconciled reported for survey.

Under any circumstances the stock tally cards shall be corrected, if necessary, to conform to the actual balance on hand, and any differences charged to gain or loss by inventory, giving date.

The progress of this inventory will be necessarily slow, but it will be continuous, and the work should be done with great care in order to obtain absolute accuracy.

Special inventories shall be taken, from time to time, as may be directed by the general auditor through the general purchasing officer.

#### REQUISITIONS FOR MATERIAL AND SUPPLIES TO BE PURCHASED.

For all material and supplies needed that are not obtainable under existing contracts requisitions shall be submitted to the general purchasing officer through the chief of the division of material and supplies, and shall be consecutively numbered, beginning a new series

each fiscal year. All requisitions shall be strictly according to prescribed forms, and be complete in the following:

There shall be carefully followed the description and wording of the requisitions originating with departments and the specifications relating thereto. The department ordering the material will be held responsible for the correct description and specifications for material ordered.

A separate series of requisitions shall be issued by the material and supplies division for material ordered for the engineering and construction department and for the Canal Zone and sanitation department.

There must be stated the date by which the supplies must be delivered.

The arrangement of the articles on the requisition must be in accordance with the latest classification, specifying the items and grouping the items under their respective class and numbers.

There must be given such details and description or specifications of the articles required, and the tests or requirements which they are to undergo, as will enable bidders and the general purchasing officer and the inspectors to understand readily what is required. Such descriptions must be made as broad as the necessities of the department will permit, in order to permit the fullest and freest competition consistent with these requirements, and special care must be taken to avoid so describing an article required as to limit it to any proprietary articles or to the products or manufacture of any particular individual or concern; the object being to place all individuals and concerns on an equal footing in making bids.

Reference to a catalogue shall not be made, nor shall the words "Equal to" or any corresponding terms be used, except as provided in the following paragraph:

There shall not be a call for any proprietary articles where it can possibly be avoided, and when calling for proprietary articles requisitions must be accompanied by a statement from the head of the department requisitioning for the supplies that these articles and no other will answer the necessities of the service.

Requisitions shall state the estimated cost, giving unit price and total amounts.

There must be expressed the object for which the supplies are wanted.

Requisitions must bear the certificate of the chief of the division of material and supplies on the Isthmus that the articles are not in store and are not obtainable under existing contracts, and that they are absolutely needed.

When the chief of the division of material and supplies receives a requisition on which any of the items can be supplied from the articles in store, or due under existing contracts by the time required, he shall immediately return it to the head of the department from which it emanated, with the request that these items be eliminated; and under no circumstances shall the chief of the division of material and supplies sign a requisition until satisfied that none of the items can be furnished from articles in store or due under existing contracts.

When a proper comprehension of requisitions necessitates sketches or drawings, they shall be appended to the requisition by the department requisitioning for the supplies.

The items on the requisition must be numbered in the left-hand margin consecutively, without regard to classes.

The division of material and supplies shall indicate in an appropriate place on the requisition the quantity of each item on hand at the time of making the requisition.

#### INSPECTION.

When supplies are received the chief of the division of material and supplies should immediately call for inspection of them.

For the inspection of supplies submitted for delivery there shall be at Cristobal and at Panama a board of two employees, assisted by a chemist.

At inspections by this board a member of the division of material and supplies shall be detailed as its representative, who shall give any information pertaining to the inspection in question that may be desired by the board, and shall bring to the attention of the board any particulars that may bear upon the protection of the public interests.

The board of inspection shall carefully inspect as to quality and quantity, and, when necessary, shall test the articles delivered under contract or under open purchase.

Calls for inspection shall be prepared in triplicate, in accordance with the prescribed form, by the chief of the division of material and supplies. They shall embrace only articles on one contract or requisition.

Immediately after supplies received by purchase in the United States or on the Isthmus shall have been inspected, they shall be tagged or marked with the name of the department for which purchased, number of contract or open purchase requisition, number of inspection call, and date when passed or rejected.

After noting action on the call, the board of inspection shall return the original to the division of material and supplies; shall forward the duplicate to the local auditor, and shall forward weekly to the general purchasing officer the triplicate, accompanied by a summary signed by the senior member of the board, showing the number of the call, names of the contractors, numbers of the requisitions or contracts, and the department to which it pertains.

Articles manufactured in the various departments, and approved by the heads of the departments to which they pertain, shall not be inspected by the board of inspection, but shall be received in store after the invoices therefor have been verified.

The board of inspection shall keep a record of its work, showing dates of inspection, articles inspected, and acceptance or rejection, noting the cause, if the latter. The inspection must in all cases be thorough, and be made personally by the board.

#### BOARD OF SURVEY.

Survey of material and supplies in the custody of the chief of the division of material and supplies shall be made by board of survey created by resolution of executive committee, composed of three members, one each being appointed by the head of the department of administration, department of government and sanitation, and of the department of engineering and construction.

When articles are turned into store, or when articles in store are deteriorated from any cause, become obsolete, or are borne on the books without value or at a fictitious value, the chief of the division of material and supplies shall make request for survey, such request to be made on the prescribed form in triplicate. The surveying officers receiving the order to make the survey shall proceed to the place where the articles are held in store and make a thorough inspection of each article, and shall write in the appropriate space in the survey report their recommendations in each case.

In the event of any property after use being returned to the material and supplies division, it shall be first valued by the board of survey, and then received by the material and supplies division at said valuation, who shall make out credit notes for same, forwarding copy of said credit note and of valuation to the local auditor at the end of each month with accompanying abstract.

The items on the survey request shall be numbered consecutively by the chief of the division of material and supplies.

Reports of survey shall be made in triplicate, one copy to be forwarded direct to the local auditor, one copy to be forwarded to the chief of the division of material and supplies, and the third copy to be retained for reference by the board.

The chief of the division of material and supplies on receiving an accomplished report of survey shall immediately cause the articles to be treated as indicated in the report.

In cases where articles are recommended to be repaired, no expenditures for such repairs shall be made until authorized by the head of the department to which they pertain.

The recommendations of the board of survey shall not become operative until approved by the head of the department to which the supplies pertain.

When articles are lost or missing, or do not correspond in kind or quantity to the marks on the package, the chief of the division of material and supplies shall request, on the prescribed form, in triplicate, an investigation by the board of survey, and such a board shall be ordered as outlined above. The report of the board shall be exhaustive, and shall be definite, when possible, as to the responsibility for loss or deficiency.

Should the chief of the division of material and supplies receive any shipment in which there is a shortage, he shall take up the invoices in full, expending the missing articles according to the direction of the survey report.

#### SALES:

Inspection, condemnation, appraisal, and public sale is necessary to a valid sale of unsuitable supplies. No such article shall be sold unless its sale has been specifically authorized by the chairman of the Commission.

It shall be the duty of the chief of the division of material and supplies to store and arrange articles condemned for sale in suitable lots, and, when occasion requires, present to the general purchasing officer a schedule of such lots, together with report of the board of survey as to the survey and final condemnation and appraisal of such material.

All material and equipment in the hands of the material and supplies division, including sanitary department, sold to outside parties, includ-

ing the Panama Railroad, should be covered by a sale order on blanks prescribed by the auditor, one copy of sale order to be forwarded to the auditor on date of issue. Reference to sale order to be given in bill Form A 20.

No old material shall be sold or exchanged which can be profitably used by reworking or otherwise.

Sales of condemned supplies and materials shall be conducted under the direction of the general purchasing officer.

T. P. SHONTS,  
*Chairman Isthmian Canal Commission.*

The CHAIRMAN. Proceed, Mr. Benson.

Mr. BENSON. The accounts of the Canal Zone are of some considerable moment, while the revenues accruing to the Canal Zone government are not very large. They consist of rentals from different sources, license fees and court fees, distillery licenses, and some rentals—I might possibly give more information if I should read just what they consist of—sales of stamps and stamped paper, to September 30, 1905, amounted to \$14,015.

Senator MORGAN. What do you mean by stamped paper?

Mr. BENSON. Postage stamps and stamped paper—would be stamped paper that there would be a tax on.

Senator MORGAN. A stamp tax on paper?

Mr. BENSON. Yes, sir; I think there was some stamped paper. That may have been done away with at the present time. I am not sure. The account, however, reads: "Sales of stamps and stamped paper."

Senator MORGAN. Is that under a law of Panama or of the United States that that paper is stamped and sold and subject to a stamp tax?

Mr. BENSON. It would be under the Canal Zone law. I have in mind that this stamped paper is not now being used.

Senator MORGAN. Well, it was used?

Mr. BENSON. I think there has been some used, on the start; yes.

Senator MORGAN. To about what extent?

Mr. BENSON. It would be very small; I would not say over a thousand dollars all told.

Senator MORGAN. Yes.

Senator TALIAFERRO. Does that item of \$14,000 include postage stamps?

Mr. BENSON. Yes; internal revenues consisted of sales of distillery licenses, slaughter taxes, retail-liquor tax—

Senator MORGAN. One word about postage stamps: How did postage stamps get into that account?

Mr. BENSON. We used the Panaman stamps.

Senator MORGAN. Why?

Mr. BENSON. We surcharged them "Canal Zone," and I think we paid 40 or 60 per cent—I will not be sure—of their face value to the Panaman Government.

Senator MORGAN. Is there any law of the United States under which we use the stamps of Panama?

Mr. BENSON. I could not say.

Senator MORGAN. You are the auditor and you have to pass on the accounts?

Mr. BENSON. Those stamps were being used, and I think were purchased largely before I came with the Commission.

Senator MORGAN. Do they purchase them yet?

Mr. BENSON. Yes. We are using them yet.

Senator MORGAN. Under what law are you using and passing accounts for the purchase of the stamps?

Mr. BENSON. That account would be audited on the Isthmus and not in the Washington office.

Senator MORGAN. Do you not revise the audits of accounts that are made on the Isthmus?

Mr. BENSON. No, sir. We would not revise an audit of that kind.

Senator MORGAN. Well, of any kind?

Mr. BENSON. No.

Senator TALIAFERRO. You do not approve or disapprove of the audit on the Isthmus?

Mr. BENSON. Only in case some particular item is referred to the Washington office for a ruling. We would not duplicate the work by auditing the account otherwise. It is finally audited by the Auditor for the War Department, and a reaudit of it here in the Washington office would create considerable expense, for which there would be no apparent need.

Senator MORGAN. Your office in Washington, then, is merely a conduit through which the auditing on the Isthmus passes to the War Department?

Mr. BENSON. Not wholly. We audit a great many things in the Washington office, and we consolidate in our books in Washington all the operations on the Isthmus.

Senator MORGAN. That is mere bookkeeping, though?

Mr. BENSON. We do not reaudit the accounts.

Senator MORGAN. That is bookkeeping; that is not auditing.

Mr. BENSON. No; that is not auditing, although the distinction between auditing and bookkeeping is not very great.

Senator MORGAN. The principal work of your office consists of bookkeeping and keeping together the run of the accounts which are stated upon the auditing that is done in the Isthmus of the current accounts of the canal and, I suppose, of the railroad?

Mr. BENSON. No; the railroad accounts are kept separate.

Senator MORGAN. We will keep that as a separate subject of investigation, then. Do you specially audit and pass upon any account that comes from the Isthmus that is not referred to you by a special order?

Mr. BENSON. No.

Senator MORGAN. You do not?

Mr. BENSON. We do not reaudit any of the accounts from the Isthmus.

Senator MORGAN. Have you received orders of that kind—official orders to investigate the principle of the audit that took place in the Zone?

Mr. BENSON. I think there have been cases of that kind.

Senator MORGAN. About how many?

Mr. BENSON. I could not say.

Senator MORGAN. Two or three?

Mr. BENSON. I should say there had been that many; yes.

Senator MORGAN. Two or three. So that, as a matter of fact, your audit of the accounts of the Canal Zone—the canal accounts and all



accounts of the Zone—is a mere review and statement on your books of the audit that has taken place in the Zone, unless some question is specially referred to you for revision or reauditing?

Mr. BENSON. Those are the facts.

Senator MORGAN. Go ahead.

Senator DRYDEN. One moment. Mr. Benson, how and wherein, then, is your system of accounts here in Washington a check upon the Isthmus accounts?

Mr. BENSON. Well, the accounts of the two officers are identical in respect to the general balance sheet. We embody on our books here and they embody on their books there the transactions of the respective offices.

Senator MORGAN. Right there, are they not bound to balance each other, if you adopt the audit of the auditor on the Zone?

Mr. BENSON. I do not catch that question.

Senator MORGAN. Are they not obliged to correspond exactly, if you merely copy and put upon your books the audit that has taken place in the Zone?

Mr. BENSON. Yes.

Senator MORGAN. Well, there is no check in that.

Mr. BENSON. We avoid by this arrangement the duplication of work. We feel that the organization on the Isthmus is capable of auditing the accounts that originate there, and the office in Washington the accounts that originate here. Under the Executive order we are required to have the books of the two offices identical, so that the accounts can be stated from either end. There being a final audit by the Auditor of the War Department, we feel that we would hardly be warranted in making another audit, which would make three audits of those accounts.

Senator MORGAN. If I understand you, then, your audit of all the accounts so made in Washington is the only original audit that is conducted in your office, excepting in cases that are referred to you specially from the Zone?

Mr. BENSON. Yes.

Senator KITTREDGE. What about the audit of the accounts of the railroad company?

Mr. BENSON. They are audited in New York. The general books of the Panama Railroad Company are kept in New York.

Senator KITTREDGE. In what manner do they come to your office?

Mr. BENSON. Only in a monthly statement, showing the result of the operations of the property. There are no charges of accounts that affect the railroad kept in the Washington office.

Senator KITTREDGE. What are your duties regarding such accounts?

Mr. BENSON. Our duties are, first, to devise a system of accounts. We found that there had been no system of statistics in use on the Panama Railroad. One of my first duties was to devise a system of modern railway statistics for the management, so that they could know how the property was being operated, showing comparisons between present and previous months and previous years. That was put in effect with the month of July. I occasionally go to New York in connection with this work, although very little of my time has been devoted to the accounts of the Panama Railroad.

Senator MORGAN. But as to the accounts of the Panama Railroad that are kept in the auditor's office in New York and on the Zone.

you pass them as a matter of course, without any investigation except in cases where you are instructed to investigate?

Mr. BENSON. That is the idea.

Senator MORGAN. Have you been instructed in any case to examine any accounts that the Panama Railroad has sent in for audit?

Mr. BENSON. Yes; I have had cases referred to me by the local auditor to pass upon.

Senator MORGAN. From the Panama Railroad?

Mr. BENSON. Yes.

Senator MORGAN. Did you pass upon them?

Mr. BENSON. Yes.

Senator DRYDEN. I would like to have you state, Mr. Benson, what is the real purpose of maintaining this system of audits here, in addition to the system in the Canal Zone. Is the purpose to have the accounts here in Washington for ready reference?

Mr. BENSON. Yes, sir; that was in line with the Executive order creating, I think, the present Commission, that there should be sets of accounts kept here, so that at all times we would be able to answer inquiries and to transmit to Congress and the President information with regard to the results of the work.

Senator DRYDEN. You would not consider, then, that the auditing here is, in fact, a check to any extent upon the auditing of accounts on the Isthmus?

Mr. BENSON. No; I would not, in respect to an individual voucher. It would not be the case that we would verify the correctness of an audit of an individual account.

Senator DRYDEN. Now, in respect to the Panama Railroad accounts. You really have three sets of accounts, have you not?

Mr. BENSON. No; two.

Senator DRYDEN. Then I misunderstood you when I thought you said that they had an audit on the Isthmus and one in New York and another one here.

Mr. BENSON. No; there are no accounts kept here for the Panama Railroad, none at all. They are merely monthly exhibits, showing the results of operation.

Senator MORGAN. In auditing the accounts of the auditor of the Canal Commission in the Zone, do you examine the vouchers and compare them with his statement?

Mr. BENSON. We check them up against his statement.

Senator MORGAN. You check them up?

Mr. BENSON. Yes.

Senator MORGAN. Do you keep the vouchers or the items of the accounts in books that you keep here?

Mr. BENSON. No; only in totals. We take his abstracts. He submits abstracts of the results of the month's work.

Senator MORGAN. Yes.

Mr. BENSON. And that forms the basis of our entry.

Senator MORGAN. Are the vouchers sent to you?

Mr. BENSON. We have copies of them; yes.

Senator MORGAN. You have copies?

Mr. BENSON. Copies of the originals.

Senator MORGAN. The originals are kept in the Zone?

Mr. BENSON. There is a copy kept in the Zone, and there is one that goes to the disbursing officer. There are three copies made, and

the disbursing officer's finally lands in the office of the Auditor for the War Department.

Senator HOPKINS. Is that the original or a copy?

Mr. BENSON. That is the original.

Senator MORGAN. The original lands in the War Department?

Mr. BENSON. Yes.

Senator MORGAN. For examination there?

Mr. BENSON. Yes.

Senator MORGAN. After it has passed the audit on the Zone and the audit here?

Mr. BENSON. Yes; the Commission's audit of the accounts is known as the administrative audit, and is made in advance of the payment of the account, and it is registered and becomes a liability of the Commission in advance of its payment. The basis of Government accounts, as I understand it, in the different Departments is different. In other words, we get a statement of expenditures from most Departments of the Government, and they give you what they have actually paid. The way our accounts are kept—they are kept as railroad accounts would be. We audit the account in advance of its payment, and it becomes a liability, and at the end of the month there would be unpaid liabilities consisting of unpaid accounts.

Senator MORGAN. Are these accounts paid before they are audited in the War Department?

Mr. BENSON. Yes; in other Departments I understand that is the way. I do not think there is any branch of the Government work—at least, I have been so informed—that makes an "administrative audit" in advance of the payment of the account, except the canal work.

Senator MORGAN. That is a departure from the ordinary rule of auditing and paying?

Mr. BENSON. Yes.

Senator MORGAN. Ordinarily the account is first audited and passed upon, and when it is approved that becomes a charge against the Government, and it is then audited by the War Department, we will say—by the Department that it goes into—and becomes a payment when that Department orders its payment, and not before. Now, I understand you that after a claim against the Panama Canal Commission has passed the auditor on the Isthmus it becomes a claim against the Government, and the claim against the Government is paid before it is audited by you or the War Department?

Mr. BENSON. They are paid, yes; on the audit that is made on the Isthmus.

Senator MORGAN. So that the audit on the Isthmus is the final and conclusive act of binding the Government to responsibility for the demand and also acquitting the Government of that obligation by its payment on the Isthmus?

Mr. BENSON. Yes; except that the Auditor of the War Department may conclude that that audit was an improper one, and suspend the item in the account of the disbursing officer, and unless the disbursing officer can show that the audit was correct, that the account was a valid account, he must come to Congress for relief.

Senator MORGAN. He must come to Congress for relief?

Mr. BENSON. That has happened, I think, in some cases.

Senator MORGAN. But he has got to take the risk of that in disbursing the money?

Mr. BENSON. Yes.

Senator MORGAN. It would appear, then, that the disbursing officer is therefore the officer of final audit before he pays a demand and is responsible if he fails to make that demand measure with the rights of the parties and with the law?

Mr. BENSON. That is right.

Senator TALIAFERRO. Your office is here in Washington?

Mr. BENSON. Yes, sir.

Senator TALIAFERRO. And everything is finally audited in the War Department?

Mr. BENSON. The disbursing officer's account, which is a basis for all payments, is audited by the Auditor of the War Department.

Senator MORGAN. And your audit on the disbursing officer's account takes place when his accounts are presented for approval?

Mr. BENSON. Yes, sir.

Senator MORGAN. And not before?

Mr. BENSON. Not before.

Senator MORGAN. So that if he should make a mistake about the law in any respect he becomes liable, and Congress has to relieve him, if he is entitled to relief?

Mr. BENSON. Yes.

Senator DRYDEN. How large are the clerical staffs in this system for the Departments here in Washington and the different ones on the Isthmus?

Mr. BENSON. There are twenty-two clerks in Washington, and at the present time there are, I think, fifty-two or fifty-three in the Isthmus office for the canal work, and fifteen in the railroad office at Colon.

Senator MORGAN. On the Isthmus?

Mr. BENSON. Yes; and fifteen in the New York office.

Senator TALIAFERRO. Are there many purchases made through the Washington office that you have to audit?

Mr. BENSON. All of the purchases that are made in the United States are audited in my office here in Washington.

Senator TALIAFERRO. I understood that the New York office did auditing.

Mr. BENSON. Not for the Canal Commission. You are speaking of the canal?

Senator TALIAFERRO. It does the auditing for the railroad, but not for the Commission?

Mr. BENSON. Yes. The railroad purchases are audited in New York.

Senator MORGAN. In regard to these railroad accounts, are they paid finally by the railroad company or by the Government?

Mr. BENSON. Up to the present time they have been paid by the railroad company, except that the Commission have advanced the railroad \$400,000 to help them out, when they were in need of something, recently.

Senator MORGAN. But the rule of payment is that the railroad company pays demands against it?

Mr. BENSON. Yes, sir.

Senator MORGAN. If it has not got the money, it borrows it from the Commission?

Mr. BENSON. Yes, sir. So far that has occurred in one case.

Senator MORGAN. Therefore the audit and final settlement of all accounts connected with the railroad operations is made in New York?

Mr. BENSON. Yes, sir; the final audit.

Senator MORGAN. What character of claims pass under the final audit of the auditor of the railroad company on the Zone?

Mr. BENSON. They are labor, and such small supplies as will be purchased on the Isthmus.

Senator MORGAN. Accounts that originate there?

Mr. BENSON. That originate there, yes.

Senator MORGAN. And if an account originates against the railroad company anywhere else, the audit of it goes to the New York office?

Mr. BENSON. Yes, sir; to the New York office.

Senator MORGAN. You do not know, I suppose, whether the auditor of the railroad company in New York passes these vouchers or these audits of the local auditor in the Zone upon an examination, or takes them as you have to take them?

Mr. BENSON. He secures abstracts and a copy of the accounts, the same as we do, from the Isthmus office.

Senator MORGAN. So that the audit of a claim against the railroad that originated in the Zone, where the claim originated in the Zone, would be a final settlement between the railroad company and the claimant?

Mr. BENSON. Yes, sir.

Senator DRYDEN. Who decides when it is thought necessary to order any additional supplies of any character? Who decides upon the order and the amount of the order?

Mr. BENSON. The department on the Isthmus desiring material makes its requisition on the division of material and supplies. If they have the articles in stock, they fill the requisition from their stock. If they have not, they order from the United States, if it is something to be purchased here, through a requisition on the general purchasing officer.

Senator DRYDEN. These supplies, when they are purchased from time to time, of course have a record of them kept in the auditor's department, both on the Isthmus and here?

Mr. BENSON. Yes. We get copies of the order.

Senator DRYDEN. Precisely. When it is thought necessary to order new supplies, is there any examination made by the auditor's department to ascertain what amount of the supplies obtained under the previous order is still on hand?

Mr. BENSON. No. The auditor does not pass upon any requisition for material. That is a matter for the supplies department, upon the approval of the department that wanted the material, showing that they were in need of it.

Senator DRYDEN. Can you tell what information the person authorized and empowered to make this order gets in order to enlighten himself as to the quantity of such supplies on hand, and whether it is necessary to order more?

Mr. BENSON. As to ordinary supplies, repair supplies and current articles, articles for current use, the head of the division would be the judge of what he should order for a limited time supply. Any specially large order would be upon information obtained from the department that originated the requisition.

Senator DRYDEN. Do you or do you not from time to time take account of stock?

Mr. BENSON. Yes.

Senator DRYDEN. So as to ascertain what amount you have. You do that?

Mr. BENSON. Yes, sir.

Senator DRYDEN. So that you could tell if there were any extravagance or recklessness in making orders. That would be detected in your department and probably reported to some superior officer.

Mr. BENSON. That would, in a measure; yes. There is no special rule requiring the accounting department, however, to question the purchase of material. If we found in taking stock that there were obsolete material on hand, and that they had acquired any quantity of some particular article in excess of their needs, special attention would be called to it and it would be investigated.

Senator MORGAN. I would like to ask something more about that post-office arrangement. I do not understand that. Who does the purchasing of postage stamps there from the Panama Government? Who has that in charge?

Mr. BENSON. I do not know, but I should think that the governor of the Canal Zone would approve of the purchase of stamps. We have a director of posts under the governor, and the treasurer of the Canal Zone is the custodian of the stamps.

Senator MORGAN. Do we pay any premium on stamps when we buy them?

Mr. BENSON. We buy them at a discount. We pay, I think, 40 per cent of their face value. I will not be sure about its being 40. It is either 40 or 60 per cent of their face value. That includes the stamping of them "Canal Zone." I think I have one of the stamps in my pocket, if you would like to look at it.

Senator MORGAN. I have seen a great many of them.

Several SENATORS. Let us see it.

(The stamp was handed to the members of the committee for examination.)

Senator MORGAN. You call them "surcharged" stamps?

Mr. BENSON. Yes.

Senator MORGAN. What does the "surcharging" refer to; the printing on the face of it?

Mr. BENSON. Yes, sir.

Senator MORGAN. The printing of the words "Canal Zone" on the back of the stamp?

Mr. BENSON. On the face of the stamp.

Senator MORGAN. On the face of the stamp—that is, the "surcharging?"

Mr. BENSON. Yes, sir.

Senator MORGAN. That is all it means?

Mr. BENSON. Yes, sir.

Senator MORGAN. You get them at 40 per cent discount from the Government of Panama?

Mr. BENSON. Yes, sir.

Senator MORGAN. The Panama Government issues them?

Mr. BENSON. Yes, sir.

Senator MORGAN. You can not get any mail out of that Zone on United States stamps, can you?

Mr. BENSON. I would not say as to that.

Senator MORGAN. What would be the use of purchasing these stamps if you could get mail out on United States postage stamps?

Mr. BENSON. I do not think you could. That would be my opinion. I never asked the question, or looked into it, but I would say that that could not be done. In fact, if my memory serves me, I think when I was on the Isthmus last summer I had occasion to mail my first letters to the United States, and I made that inquiry. I inquired if I could use the United States postage stamps, and I was told that I could not.

Senator MORGAN. You were told that you could not?

Mr. BENSON. Yes; that I could not.

Senator MORGAN. The United States Government buys them at 40 per cent discount from Panama and sells them at the full face value of the stamp?

Mr. BENSON. Yes, sir.

Senator MORGAN. Is there any reason for that, that you can state?

Mr. BENSON. Not unless it is a matter of agreement between the respective Governments.

Senator MORGAN. Do you know whether it is or not?

Mr. BENSON. No, sir; I do not. I have never had occasion to look it up.

Senator MORGAN. Is there any law of the United States that authorizes this Government to buy stamps from Panama or from any other government at a discount and sell them to its own citizens at a profit of the difference between the face value and the discount?

Mr. BENSON. I could not say.

Senator MORGAN. Those stamps are sold at their face value on the Isthmus?

Mr. BENSON. Yes, sir.

Senator MORGAN. No allowance is made for the discount of 40 per cent?

Mr. BENSON. No.

Senator MORGAN. Is that a mere speculation of the Government in postage stamps? Is that what it means?

Mr. BENSON. I do not know. [Laughter.]

Senator MORGAN. It looks that way. I do not know what it is, really. I want to find out.

Mr. BENSON. It never occurred to me before.

Senator MORGAN. Where did you get these stamps on the Isthmus; from the United States Post-Office?

Mr. BENSON. From the Canal Zone post-office; yes.

Senator MORGAN. That is the United States post-office?

Mr. BENSON. Yes.

Senator MORGAN. The postmaster has been appointed here?

Mr. BENSON. We buy them from the Panaman Government and turn them over to our treasurer, who is the custodian of them, and he issues them on requisitions from the postmasters that are approved by the director of posts.

Senator MORGAN. The postal laws of the United States, including the franking privilege, are extended over the Zone, are they not?

Mr. BENSON. We frank our mail to and from the Zone.

Senator MORGAN. I suppose that is as far as I can get with it. I do not understand it.

Senator HOPKINS. I do not understand, in view of that last answer of yours, the necessity of the use of stamps.

Mr. BENSON. Well, these are for commercial uses. Our franking privileges are confined to the mailing of Government matter.

Senator HOPKINS. And these stamps are bought simply for commercial uses there on the Zone?

Mr. BENSON. On the Zone and to and from the United States—for the public's use.

Senator SIMMONS. Do you mean that if one of these stamps was put on a letter on the Zone it would take that letter to some point in the United States?

Mr. BENSON. From our own post-office, yes; but not from Colon or Panama.

Senator MORGAN. It would not take a letter from here to the Zone, if it were put on here?

Mr. BENSON. No, sir.

Senator MORGAN. Well, I do not understand it.

Senator HOPKINS. Is it correct to say that if a private citizen in Washington were writing to a person engaged in business on the Zone he should put a United States stamp on his letter, and in addition put on one of these stamps? Is that it?

Mr. BENSON. No, sir; he would simply put on a United States stamp.

Senator HOPKINS. Suppose the person is there at one of the points in the Zone, engaged in business, and he wanted to write to a party in Philadelphia; would he use other than a United States stamp on that letter?

Mr. BENSON. He would use one of these Canal Zone stamps.

Senator HOPKINS. And not the United States stamp?

Mr. BENSON. Not the United States stamp. It would practically be like a foreign country in that respect as between the Canal Zone and the United States; just as would be the case in sending a letter to England. They would use their stamps in sending their letters here and we would use our stamps in sending one there.

Senator HOPKINS. So that a letter would require 2 cents to carry it from Washington to some point in the Canal Zone, and the same letter going from that point in the Canal Zone to Philadelphia, instead of having a United States stamp would require a 2-cent Panama stamp?

Mr. BENSON. A Canal Zone stamp; yes.

Senator MORGAN. Then, as to the Canal Zone, it seems to be true that the Government considers that a foreign country in respect to postal arrangements?

Mr. BENSON. Except that we can send letters to and fro between the Canal Zone offices and the United States offices at the local postal rate in the United States.

Senator MORGAN. Between the officers of the Government?

Mr. BENSON. No.

Senator MORGAN. How about citizens?



Mr. BENSON. A citizen can mail a letter from Ancon, which is in the Canal Zone, to Washington for 2 cents, while if he mails it from Panama it would cost him 5 cents. The rate from Washington to Panama would be 5 cents, as that is in the Republic of Panama.

Senator DRYDEN. No one but the United States Government can buy these stamps from the Panaman Government at a discount?

Mr. BENSON. No one else.

Senator MORGAN. My difficulty is this: I have always regarded the Canal Zone as not being a foreign country, but it seems that this arrangement with reference to all matters of postal intercourse with the United States, between private people at least, regards the Canal Zone as a foreign country, but they have consented to reduce the postage between that foreign country and the United States from 5 cents to 2 cents. Is that your understanding of the situation?

Mr. BENSON. I know that that is the rate of postage that is required.

Senator MORGAN. Yes.

Senator SIMMONS. But the citizen does not get the full benefit of that, because while you buy at a discount of 60 per cent he has to pay 100 per cent?

Mr. BENSON. He has to pay 100 per cent. We could furnish them ourselves and get the whole 100 per cent, less the cost of printing, if we had our own stamps.

Senator SIMMONS. What is the denomination of that stamp?

Mr. BENSON. I think it is a 1-cent stamp.

Senator SIMMONS. What is the difference between a 1-cent stamp and a 2-cent stamp there? Is it the same as it is here between the same stamps?

Mr. BENSON. Yes; I should say so.

Senator SIMMONS. What did you mean a little while ago when you said that those were for commercial purposes?

Mr. BENSON. I had just remarked that our own mail was franked—the Government mail to and from the Isthmus—and that these stamps would be used by the public where postage was required to be paid.

Senator SIMMONS. Then they recognize our postal laws in allowing the franking privilege in matter coming from the Zone here?

Mr. BENSON. Yes.

Senator TALIAFERRO. Does that franking privilege extend to Panama and Colon?

Mr. BENSON. No, sir; only to our own post-offices. We address all our mail to Ancon, and letters written there are dated from Ancon, notwithstanding that the transaction usually takes place in the city of Panama, where our offices are. The letters are taken up to our Ancon office and mailed.

Senator HOPKINS. How long have we been using this character of stamps from the Zone to the United States in commercial transactions?

Mr. BENSON. At the opening of the Zone I think they started to use United States stamps, and they used, if I remember rightly, something like \$4,000 worth. Those stamps were on the Isthmus when I was there last summer. They had been surcharged "Canal Zone," but they have since been destroyed as being useless, there having been substituted for them these Panaman stamps, which has done

away with the need of them. Under what arrangement that exchange was made I am not prepared to say.

Senator GORMAN. That was made under an arrangement entered into by the Secretary of War, reported in the first report of the Canal Commission, where there is a conflict not only as to postal arrangements, but the merchandise going into the Zone. On page 9 you will find this:

Section 7 changes the present system of posts only to the extent that the stamp to be used shall be a stamp of the Panama Republic, crossed with the words of the Canal Zone, and that this shall be paid for by the postal authorities of the Canal Zone to the Republic—this on condition, however, that the rates between the United States and the Republic shall be reduced to 2 cents. Then there are special provisions as to the carrying of Government mail free by the Government.

It is a sort of a treaty or contract, or whatever it might be called, entered into in December, 1904.

Senator SIMMONS. That postage stamp is to pay for carrying that letter?

Mr. BENSON. Yes.

Senator SIMMONS. It is sold by the Panaman Government?

Mr. BENSON. They are printed by the Panaman Government, and we buy them from them.

Senator SIMMONS. That letter is not carried by the Panaman Government at all. Is it not deposited in our post-office there?

Mr. BENSON. Yes.

Senator SIMMONS. Is it not brought over here by our railroad service and our boat service?

Mr. BENSON. Yes.

Senator SIMMONS. Do they have any expense at all connected with the carrying of that letter?

Mr. BENSON. I would not suppose so.

Senator SIMMONS. Well, then, why should the Panaman Government be paid anything for carrying it, if they do not carry it and we do carry it? Why should not the income from that source come into our Treasury instead of into theirs?

Mr. BENSON. It is not clear to me.

Senator KNOX. You had nothing to do with making this arrangement?

Mr. BENSON. No.

Senator MORGAN. You merely saw the operations of it?

Mr. BENSON. That is all.

Senator DRYDEN. I should like to have Mr. Benson explain to the committee, if he will, what safeguards are put up to protect the Government in the purchase of its supplies and in dealing with its help against excessive and fraudulent charges, or, in the case of supplies, against the delivery of a less amount of goods than are supposed to be bought and paid for, or an inferior quality as well.

Mr. BENSON. The ordering of material from the Isthmus is made on requisitions on the purchasing office at Washington. That material is advertised for, bids are requested, unless it is an emergency purchase, with specifications as to what is required in connection with the quality, etc. The bids are opened here at Washington, and the order is placed, presumably to the lowest bidder, everything else being equal. If it is material of special manufacture that requires inspect-

ing during the process of manufacture, we have an inspecting office in New York, who have a corps of inspectors that we now use. We have in the past used outside inspectors for that purpose, who visit the factories where the material is being manufactured, to see if it is being manufactured according to specifications.

Material that is bought f. o. b. in New York is inspected in New York by the representatives of the Commission before it goes forward; and on the strength of that inspection and acceptance by the New York representatives, the account is paid for. That material is also accepted by the division on the Isthmus which takes up that material, and the final invoice showing that acceptance on the Isthmus comes to the Washington office for file with the records of the office. Material that is bought C. I. F. Isthmus may be inspected in the United States, and usually is—that is, material that is being manufactured under large orders, like equipment or piling lumber that is being creosoted—and on arrival at the Isthmus a second inspection is made, which is the final inspection. All of our purchases are made subject to that final inspection, and until that material reaches the Isthmus and is inspected and accepted there no payment is made.

Senator DRYDEN. It is impossible, then, for the Government to be defrauded except by conspiracy or by dishonesty on the part of its own employees?

Mr. BENSON. That is right.

Senator MORGAN. Have you ever audited any accounts for money passing from banks from Panama to the Commission?

Mr. BENSON. We have accounts for the exchange; that is, money paid on the Isthmus for the cashing of our disbursing officer's checks drawn on the New York subtreasury.

Senator MORGAN. What banks are those accounts kept with?

Mr. BENSON. We have a monetary agreement with four bankers in Panama—Ehrman & Co., Brandon & Co., I think the North American Trading Company; I will not be sure as to the other two. There are four of them. One of the others is a United States corporation which is in the banking business down there.

Senator MORGAN. What is the name of that corporation—the International Banking Company?

Mr. BENSON. The International Banking Company.

Senator MORGAN. It has an office here in Washington?

Mr. BENSON. I think they have an office here; yes.

Senator MORGAN. The chief office is here in Washington, is it not?

Mr. BENSON. I do not know whether it is the chief office or a branch. I understand they have an office here.

Senator MORGAN. And this is a branch or something; it is some kind of a representative of the establishment in Panama?

Mr. BENSON. Yes, sir.

Senator MORGAN. Is the one down there located outside of the Zone?

Mr. BENSON. Yes; outside of the Zone, in the city of Panama.

Senator MORGAN. In the city of Panama?

Mr. BENSON. Yes, sir.

Senator MORGAN. It is under the Panama laws, then?

Mr. BENSON. Presumably.

Senator MORGAN. It necessarily is, is it not?

Mr. BENSON. Necessarily; yes.

Senator MORGAN. Yes; so that it has its right of transacting business there only by the consent of the Government of Panama?

Mr. BENSON. I should say so.

Senator MORGAN. Yes. Now, the Commissioners or paymasters, or whoever handles the money in discharging the obligations of the United States in the Zone in respect to the canal operations, the digging, etc., obtain money from one of these four banks?

Mr. BENSON. Yes.

Senator MORGAN. Have they any other depository or any other place where money is kept which can be drawn on the check or the draft of the Commissioners for the payment of expenses there?

Mr. BENSON. Only in the United States. Do not understand that our disbursing officers keep money in these banks subject to their check. They have no authority to do that. They furnish us the money, and it is brought to our disbursing office and kept in safes.

Senator MORGAN. The banks furnish the money to the disbursing officer?

Mr. BENSON. On his check, drawn on the New York subtreasury, where he has his account.

Senator MORGAN. The bank furnishes the money to the disbursing officer; the disbursing officer puts it in the safe, and pays it out according to his requirements?

Mr. BENSON. According to his requirements.

Senator MORGAN. Now, it is the action of the Commission in furnishing that money to the disbursing officer that you audit?

Mr. BENSON. Yes.

Senator MORGAN. Can you give the committee some idea of the sums of money that have been paid out by the Government to these banks in the way of commissions for furnishing money to these disbursing officers?

Mr. BENSON. I could not do so without looking up the figures.

Senator MORGAN. Is it a large amount?

Mr. BENSON. Why, I would not suppose that it was very large. We may possibly have paid out \$5,000 since the agreement went into effect. It may not be that much. I would not want to say without looking up the figures.

Senator MORGAN. What is the rate of this commission—what per cent?

Mr. BENSON. I think it is one-quarter.

Senator MORGAN. One-quarter of 1 per cent?

Mr. BENSON. Yes, sir.

Senator MORGAN. So that on all the money of every kind that is used by disbursing officers in the Canal Zone in discharge of the obligations of the United States, a quarter of 1 per cent is paid to these four banks in Panama?

Mr. BENSON. I think we get some profit by—I will not say as to that. I would have to look up the monetary agreement.

Senator MORGAN. Have you a copy of that agreement?

Mr. BENSON. Yes.

Senator MORGAN. Can you furnish it to the committee?

Mr. BENSON. I can.

Senator MORGAN. Yes; thank you, if you will. Have you got it now?

Mr. BENSON. Not with me.

Senator MORGAN. Then that will go into the record when it comes just at this place, Mr. Chairman, if you please.

(The agreement above referred to was subsequently furnished, the same being the agreement introduced by the Secretary of War in the hearing before the Senate Committee on Appropriations on December 12, 1905; and the same is in words and figures as follows, to wit:)

*Memorandum of agreement made this 29th day of April, in the year one thousand nine hundred and five, by and between:*

I. The United States Isthmian Canal Commission, hereinafter called the "Commission," and the Panama Railroad Company, hereinafter called the "Railroad Company;"

II. The Republic of Panama, acting through William Nelson Cromwell, its fiscal commissioner in the United States, hereinafter called the "Republic;" and

III. Messrs. Ehrman & Co., a copartnership; Messrs. Isaac Brandon & Brothers, a copartnership; The International Banking Corporation, a corporation organized under the laws of Connecticut, and The American Trade Developing Company, a corporation organized under the laws of New Jersey; each of said firms and corporations being engaged, among other things, in the business of banking on the Isthmus of Panama and elsewhere and hereinafter called the "Bankers," witnesseth:

Whereas it is the desire of the Commission, the Railroad Company, and the Republic to secure a reliable supply of silver of the Panama currency, as required for their respective wants upon the Isthmus of Panama, and also to maintain, substantially, the parity of the silver coinage of the Republic with the gold standard of the latter, as designed by the agreement entered into between the Secretary of War for the Isthmian Canal Commission and the Republic of Panama, at Washington, on June 20th, 1904, and confirmed and promulgated by them at Panama on December 3, 1904; and

Whereas to the end aforesaid it is mutually desired by the parties hereto that this agreement be entered into between them:

Now, therefore, in consideration of the premises and of the mutual agreements herein contained, the parties hereto severally, but not jointly, agree to and with each other as follows:

#### FIRST.

A. The Bankers severally agree with the Commission, the Railroad Company, the Republic, and with each other to purchase and take in the proportion following, namely: Ehrman & Co., thirty (30) per centum; Isaac Brandon & Brothers, thirty (30) per centum; The International Banking Corporation, twenty-five (25) per centum, and The American Trade Developing Company, fifteen per centum from the Commission, the Railroad Company, and the Republic, all drafts or bills of exchange on New York which may be drawn by the Commission, the Railroad Company, or the Republic by the duly authorized officer or representative of either, and made payable at New York at sight in United States currency at the uniform rate of two silver pesos Panama currency for each dollar of United States currency, which either of said last three named parties may offer for sale to and request to be purchased by the Bankers and to pay for the same in silver coin of Panama currency: *Provided*, That ten days' written notice, specifying the amount of such drafts or bills of exchange so offered shall, in each instance, be previously given to the Bankers by the party so requesting the same.

B. The Bankers also likewise severally agree to sell and deliver to the Commission, the Railroad Company, and to the Republic, in the proportions aforesaid, all drafts or bills of exchange on New York to be drawn by them, respectively, and to be payable at one day's sight in United States currency at the uniform rate of two silver pesos and one cent Panama currency for each one dollar of United States currency, which either of said last three named parties may request to be to them so sold upon payment for the same in silver currency of Panama: *Provided*, That ten days' written notice specifying the amount of such drafts or bills of exchange shall, in each instance, be previously given to the Bankers by the parties so requesting the same.

C. The Bankers also severally agree to sell and deliver to the Commission, and the Railroad Company, and the Republic, respectively, upon fifteen days' written notice in each instance previously given to the Bankers, and in the proportions aforesaid, such amount of United States currency as either or all of said named parties

may so specify at the uniform rate of three-quarters of one per centum United States currency upon the amount so called for in addition to the face amount thereof.

D. The Bankers also severally agree to sell to the public—that is, to whomsoever may call for and request the same at their respective banking offices in Panama and who may, at the same time, tender therefor payment in silver currency of Panama—drafts or bills of exchange on New York, drawn by them, respectively, at not more than three days' sight, at a rate which shall not exceed two silver pesos and three cents Panama currency for each one dollar United States currency; and they also likewise agree not to sell any drafts or bills of exchange on New York to any other parties at rates or upon terms or compensation which shall in any instance exceed two silver pesos and three cents Panama currency for each one dollar United States currency.

The provisions of this article shall be subject to the provisions of article third hereof.

#### SECOND.

The Commission, the Railroad Company, and the Republic severally, but not jointly, agree with each other and with the Bankers severally to purchase from or sell to the Bankers, as the case may be, in the proportions aforesaid, all drafts or bills of exchange drawn on the Isthmus upon any party in the United States which they may desire to purchase or sell for any purpose soever upon the terms and conditions herein agreed.

The provisions of this article shall be subject to the provisions of article third hereof.

#### THIRD.

A. Any of the Bankers who shall so desire may be relieved or released in whole or in part from his obligations hereinbefore expressed with respect to any particular requisition of the Commission, the Railroad Company, or the Republic made under and in pursuance of the terms of this contract, upon giving notice to all the parties hereto, as follows: Such notice must be in writing and must specify the part or amount of such requisition from which such Banker desires to be relieved or released. Such notice must be given to all the other parties to this agreement before 3 o'clock of the day next after that upon which the Bankers shall be notified of such requisition (Sundays and legal holidays excepted), and unless so given within the time so limited shall be null, void, and of no effect. But such notice need not be given by any Banker to any other Banker who shall have already served notice himself under the provisions of this paragraph. Upon giving due and timely notice, as aforesaid, the Banker giving such notice shall be relieved and released from his obligations hereunder with respect to such requisition, to the extent specified in such notice, and none of the other Bankers shall be under any obligations whatsoever to such Banker in respect of the requisition as to which such notice shall have been given.

B. If any of the Bankers shall have become released and relieved in whole or in part from his obligations with respect to any such requisition by giving due and timely notice as hereinbefore provided; or if any of the Bankers who have not given such notice shall fail fully to comply with all their obligations with respect to any such requisition under the preceding articles of this agreement; or if any of the Bankers who have given such notice shall fail fully to comply with their obligations as to the portion of their liability from which they have not thereby been so relieved or released; or if this agreement shall be terminated as to any of said Bankers as hereinafter in paragraph "C" of this article provided, the Banker or Bankers who shall not have given notice under paragraph "A" of this article, or as to whom this agreement shall not have been terminated, hereby severally agree with each other and with the Commission, the Railroad Company, and the Republic that they will take upon themselves and perform the obligations of the Banker or Bankers so relieved and released or so failing or as to whom this agreement shall be so terminated in the proportion which their several percentages hereinbefore stated shall bear to the aggregate of the percentages of all such remaining Bankers.

C. If any requisition hereunder of the Commission, the Railroad Company, or the Republic shall not be duly and punctually honored and fulfilled by the Bankers, or some of them, as hereinbefore provided, then, at the option of either the Commission, the Railroad Company, or the Republic, this agreement shall in all respects cease, determine, and be utterly at an end, notwithstanding the Bankers, or some of them, may have given notice as provided by paragraph "A" of this article.

If any of the Bankers shall, in any respect, fail to observe and perform all and each of the provisions of this agreement, then, at the option of any of the other Bankers,

this agreement shall cease, determine, and be utterly at an end with respect to the Banker or Bankers so in default, and the Banker or Bankers so in default shall have no further interest hereunder, nor shall the other parties hereto, nor any of them, be under any further obligation hereunder to such Banker or Bankers: *Provided*, That in that event all the provisions of this agreement shall continue as to, and shall apply to, the remaining Banker or Bankers as if they alone had originally been the only Bankers named herein, and the several shares or percentages of such remaining Banker or Bankers shall be increased as provided in paragraph "B" hereof. But the giving of notice under paragraph "A" of this article shall not, for the purpose of paragraph "C," be deemed to be a default on the part of the Banker or Bankers giving such notice.

## FOURTH.

It is mutually agreed that all payments and deliveries of drafts, bills of exchange, or currency, and all communications of any kind by any party hereto shall be made as to the Commission and the Railroad Company at the offices of their respective disbursing agents in the city of Panama, and as to the Republic at the office of the tesoreria general in the city of Panama, and that all notices, tenders, demands, and communications by any party hereunder shall as to the Bankers be made at respective offices of the latter in the city of Panama.

## FIFTH.

It is mutually agreed that this agreement shall continue for the period of one year from the date hereof, except as sooner terminated in respect of a defaulting party, as provided in article third hereof.

In witness whereof the parties hereto have hereunto set their hands and seals, or caused these presents to be duly executed by their authorized representatives, the day and year first herein written.

For Ehrman & Co.:

J. EHRLMAN.

For American Trade Developing Company:

J. EHRLMAN.

ISAAC BRANDON & BROS.

INTERNATIONAL BANKING CORPORATION.

J. S. FEARON, *Vice-President*.

[SEAL.]

Attest:

JAS. H. ROGERS, *Secretary*.

UNITED STATES ISTHMIAN CANAL COMMISSION,  
By T. P. SHONTS, *Chairman*.

PANAMA RAILROAD COMPANY,

By T. P. SHONTS, *President*.

E. A. DRAKE, *Secretary*.

[SEAL.]

Approved:

WM. H. TAFT,  
*Secretary of War*.

REPUBLIC OF PANAMA,  
By WM. NELSON CROMWELL, *Fiscal Commissioner*.

PRESIDENCIA DE LA REPUBLICA,  
*Panama, Mayo 29 de 1905.*

Aprobado:

[SEAL.]

M. AMADOR GUERRERO.

El Sub Secretario de Hacienda del Despacho.

[SEAL.]

T. MARTIN FEUILLET.

Senator MORGAN. I wish to ask you whether until a recent period the International Bank in Washington transacted business with the disbursing officers directly, and not through this branch they have in Panama?

Mr. BENSON. Not to my knowledge. The first knowledge I had of the International Banking Company's having any business with us was when they became parties to this monetary agreement. Prior

to that time the money required on the Isthmus was shipped by express from New York.

Senator MORGAN. From the subtreasury?

Mr. BENSON. From the subtreasury.

Senator MORGAN. Have any vouchers passed under your observation that included transactions between disbursing officers on the Isthmus and this bank here, the International Bank here in Washington?

Mr. BENSON. Not to my knowledge. That account would be audited on the Isthmus. If there were any payments made to the banks there, they would be audited on the Isthmus.

Senator MORGAN. You do not know, then, whether or not this transaction that I have indicated has taken place?

Mr. BENSON. No; not through the Washington office. I do not see how it could. In that case the account would be audited here.

Senator MORGAN. Yes. About what is the date of that agreement? I wish to get it in my mind.

Mr. BENSON. Somewhere around July 1.

Senator MORGAN. 1905?

Mr. BENSON. 1905. It may be thirty days subsequent to that time, but I should say it was somewhere near the 1st of July.

Senator MORGAN. Then these four banks in the isthmian Zone, or in Panama, handle all the money that is paid out in the Isthmus for any work at all?

Mr. BENSON. Yes.

Senator MORGAN. Or for material?

Mr. BENSON. Yes.

Senator MORGAN. The sum they handle is an immense sum, is it not, in the aggregate?

Mr. BENSON. Yes; we are disbursing on the Isthmus now from six to seven hundred thousand dollars.

Senator KITTREDGE. A month?

Mr. BENSON. A month.

Senator MORGAN. So that practically those four banks handle \$700,000 a month, and make a charge of a quarter of 1 per cent for handling it?

Mr. BENSON. I do not think that the account would run that heavy. I think there must be some counter credits that would reduce that. As I said, my mind is not clear as to the terms of that agreement.

Senator MORGAN. I have understood that it was about \$675,000 a month.

Mr. BENSON. The amount of the disbursements?

Senator MORGAN. Yes.

Mr. BENSON. Well, they vary. They are increasing right along. I think the January disbursements will approximate nearly \$700,000.

Senator MORGAN. But whatever disbursements are made there are made under the arrangements that have been spoken of, by which the Government of the United States pays the banks in Panama for handling that money?

Mr. BENSON. Yes.

Senator MORGAN. And they accept that in preference to shipping it from the subtreasury?

Mr. BENSON. Yes. Under the old arrangement we were paying express charges for shipping the money down from New York, which,



I think, amounted to three-eighths of 1 per cent, if my memory serves me right, and that did not include insurance. There was a risk attached to it that we carried ourselves.

(After an informal discussion among the members of the committee as to whether the monetary agreement referred to by the witness, and hereinbefore set out, had not been submitted to the Committee on Appropriations by Secretary Taft, the following occurred:)

Mr. BENSON. I am quite sure that the agreement has been filed with some committee of the Senate.

Senator MORGAN. Does the Government of the United States borrow this money from those four banks in Panama, or does it by some arrangement first make advances to these banks?

Mr. BENSON. The disbursing officer draws his check. We place the money to his credit in New York in advance of the need of the money, something like two weeks ahead of the time he will need it. We give him a credit on his requisitions. Then he negotiates his checks against his account with these banks. The business is divided on a fixed basis, under the agreement between the different banks, as to what amount each shall contribute.

Senator MORGAN. Then the disbursing officer draws his check against the Government?

Mr. BENSON. Yes.

Senator MORGAN. Payable at the subtreasury in New York?

Mr. BENSON. Yes.

Senator MORGAN. Two weeks in advance of the expected disbursements, or about that time?

Mr. BENSON. About that time.

Senator MORGAN. And thereby, when they are made in due form of law, puts the banks in funds to meet these requirements, and the money is then drawn on the check of the disbursing officer, put into his safes, and paid by him into the hands of whoever it belongs to—laborers and all other employees?

Mr. BENSON. Yes.

Senator MORGAN. Material men, and all that?

Mr. BENSON. Yes.

Senator MORGAN. That is the routine?

Mr. BENSON. Yes. I would like to qualify that impression that you received; my remark may have misled you. I do not know that he draws his check as soon as this amount is placed to his credit. I know that we give him the credit in advance of his requirements by approximately two weeks.

Senator MORGAN. In practice, then—in real fact—that is a transfer of the subtreasury of New York into Panama? The Government supplies the money to the banks in Panama, and the disbursing officer draws it out upon his checks and pays it to the people?

Mr. BENSON. You understand that from half to two-thirds of our payments on the Isthmus are made in Panaman silver.

Senator MORGAN. I know that.

Mr. BENSON. We would have to get that silver from the Panaman bankers.

Senator KNOX. Does it not work in this way: They furnish the Government the money on the Isthmus, and the Government pays them in New York? You give them drafts on New York?

Mr. BENSON. Yes; we give them New York exchange.

Senator KNOX. There is actually no money at all coming down to the Isthmus from the Government, either to you or to the bankers?

Mr. BENSON. No.

Senator KNOX. Then this money, when it is given to the Government on the Isthmus, is paid out by the Government on the Isthmus; then these bankers gather it up again as against the next pay day, and you pay them again in New York for the use of this money again?

Mr. BENSON. Yes.

Senator KNOX. And so it repeats itself?

Mr. BENSON. That is the way it works.

Senator MORGAN. Except that the money is paid to the banks from the subtreasury in New York two weeks in advance of each disbursement in the Isthmus; and during that interval of time the banks in the Isthmus take the place of the subtreasury in New York.

Senator DRYDEN. As a matter of fact, it is cheaper for the Government to get its money through these banks than it was to send it by express, is it not?

Mr. BENSON. I think it is; yes, sir.

Senator MORGAN. It may be cheaper, but how about the safety of it? Suppose one of these banks was to blow up during that period of two weeks?

Senator DRYDEN. But I understood, Mr. Benson, that you said that the Government actually received the money from the banks, took it out of the banks, and put it into the Government vaults?

Mr. BENSON. It does.

Senator DRYDEN. Therefore, if the banks failed—

Senator MORGAN. But that, as I understand it, is two weeks later than the draft, for the money has been drawn upon the subtreasury in New York by the disbursing officer.

Mr. BENSON. I qualified that, Mr. Senator, by remarking that I did not know that he drew his check immediately upon the money being placed to his credit in New York. I know that he gets his credit approximately two weeks in advance of the time that he would have need of the money.

Senator MORGAN. The money, Mr. Benson, is actually lodged in all four or one or more of the Panama banks before it is drawn into the hands of the disbursing officer on his check?

Mr. BENSON. It does not appear reasonable that the disbursing officer would turn his check over to these banks in advance of getting his money.

Senator MORGAN. No.

Mr. BENSON. When he presents his check, he must get his money. Then he takes it to his office and puts it in his safe.

Senator MORGAN. He first gets the money from the subtreasury on his check, and then he gets the money out of their hands upon his check?

Mr. BENSON. I do not think the disbursing officer would give up his check before he got the money.

Senator MORGAN. He probably would not; but suppose that in the meantime one of these banks fail?

Mr. BENSON. But he has the money in the meantime. The Government would not sustain any loss in that event, because he does not issue his check on the subtreasury until he gets his money.

Senator KNOX. Mr. Benson, is not this where your answer is not understood by Senator Morgan? I misunderstood you at first, and I think I understand you now. It is not the Panama banker that gets the credit in New York two weeks before the money is paid out, but it is the disbursing officer that gets the credit, against which he draws in favor of the Panama banker, and he does not draw until he actually gets the cash and takes it away from the bank?

Mr. BENSON. That is the idea.

Senator MORGAN. My point is this: I want to know whether the bank does not become the actual custodian of this money before it is paid out on the check of the disbursing officer?

Mr. BENSON. No, sir; I do not think that is possible.

Senator MORGAN. Would the disbursing officer draw his check against it when it was not there?

Mr. BENSON. No; he would not draw until he had advice from the Washington office that the amount had been placed to his credit.

Senator MORGAN. Very good. Now, where is the money in the meantime?

Mr. BENSON. Where is the money?

Senator MORGAN. Yes.

Mr. BENSON. As soon as he draws his check he must get the money from the bankers.

Senator MORGAN. Very good.

Mr. BENSON. He has no authority to allow them to take his check in advance of cashing it.

Senator MORGAN. Very good. Then they are the custodians of it for the time being?

Mr. BENSON. I can not see that, Mr. Senator.

Senator MORGAN. I do not see how it is otherwise. You say he draws the money out of the bank and takes it and locks it up in his safe. He gets it from somewhere.

Mr. BENSON. Well, he is the custodian of it, not the bank.

Senator MORGAN. He has not got it until he draws his check in favor of the bank?

Mr. BENSON. No; but the money is in New York to his credit, not to the credit of the bankers.

Senator MORGAN. The money, if it is in New York, can not be paid by the banks to him; it must be in Panama.

Mr. BENSON. But he presents his check to the banks there, and they cash it. Then they send it to New York and collect it.

Senator MORGAN. Then what fund do they pay it from?

Mr. BENSON. From their own circulation, I imagine—their own funds.

Senator MORGAN. That is a mere imagination, is it not, about their circulation?

Mr. BENSON. Well, from funds that they have. There is a certain circulation of Panamanian silver down there.

Senator MORGAN. Now, if when the disbursing officer presents his check for, say, a million of dollars to one of these banks they answer, "No funds," break, and run off, what security has the Government of the United States that they have not the day before cashed their check on the subtreasury in New York, gotten the money, and gone into the chaparral?

Mr. BENSON. Because they do not get his check until he gets their money.

Senator MORGAN. I understand; but they get the money out of the subtreasury before he draws his check if they want to.

Mr. BENSON. No; they have no call on the subtreasury. They have no authority. They have no credit there. The credit is to the disbursing officer, and not to these bankers.

Senator MORGAN. Why is not the money shipped to him, then, instead of to the banks?

Mr. BENSON. We used to ship it to him by express.

Senator MORGAN. What is the reason of the change of that arrangement?

Mr. BENSON. I am not advised.

Senator MORGAN. Do you know any of the directors of any of these four banks?

Mr. BENSON. I know Mr. Ehrmann, one of the firm of Ehrmann & Co. I met him when I was on the Isthmus last summer. He is considered, I think, the leading banker there.

Senator MORGAN. Do you know who his partners are?

Mr. BENSON. I do not.

Senator MORGAN. Any of them?

Mr. BENSON. No; I never met them.

Senator MORGAN. Do you know any others?

Mr. BENSON. I know the manager of the International Banking Company.

Senator MORGAN. Who is he?

Mr. BENSON. I do not recall his name. I met him when I was on the Isthmus.

Senator MORGAN. He is down there, is he?

Mr. BENSON. He is on the Isthmus.

Senator MORGAN. Do you know who is associated with him?

Mr. BENSON. I think he is only a manager for the International Banking Company.

Senator MORGAN. A manager for the International Banking Company here?

Mr. BENSON. Yes, sir; that branch of it.

Senator MORGAN. Do you know whether that branch of the International Banking Company—I will call it a branch, supposing it to be such—have any separate stock for that bank?

Mr. BENSON. I do not.

Senator MORGAN. You do not know anything about that?

Mr. BENSON. I know nothing about it.

Senator HOPKINS. Is this International Bank organized under the laws of some of the States?

Mr. BENSON. I think it is a New Jersey corporation.

Senator HOPKINS. A New Jersey corporation?

Mr. BENSON. I was over in the Orient two years ago, and ran across a couple of its branches over there. It has a branch at Yokohama, Japan, and at one other place, I think.

Senator MORGAN. Have you ever seen the New Jersey charter?

Mr. BENSON. No; I have not.

Senator MORGAN. You do not know who the incorporators are?

Mr. BENSON. I do not. I know I was connected at that time with what are known as the Harriman railroads, and I saw a list of the directors or trustees, and Mr. Harriman was one of them.

Senator MORGAN. Do you recollect any other name?

Mr. BENSON. No; I do not.

Senator MORGAN. I presume we can get that by going to the records of the New Jersey corporation.

Mr. BENSON. It is only an impression I have that it is a New Jersey corporation. It may not be.

The CHAIRMAN. It is a Connecticut corporation, Senator Morgan. It is incorporated under the laws of the State of Connecticut.

Senator HOPKINS. Do the laws of the State of Connecticut allow branch banks?

The CHAIRMAN. I believe they do; but I know that this particular concern is incorporated under the laws of the State of Connecticut.

Senator MORGAN. Have you a copy of the charter there?

The CHAIRMAN. No, sir.

Senator MORGAN. I would like to see it if you have one.

The CHAIRMAN. I have not a copy of it, Senator.

Senator MORGAN. We can bring that up later, then.

Senator HOPKINS. Is it your understanding, Mr. Benson, that this International Bank of which you speak has an office here in Washington and one on the Isthmus and also one over in the Philippines?

Mr. BENSON. Yes; that is my understanding. I know they have one at Yokohama, and I know they have one on the Isthmus. I have met their manager here, a man by the name of Tait.

Senator HOPKINS. For what amount is that bank capitalized?

Mr. BENSON. I do not know.

Senator HOPKINS. Do you know a Captain Palmer connected with the bank?

Mr. BENSON. I do not.

Senator HOPKINS. Do you know the capitalization of any of these banks with which you are doing business on the Zone?

Mr. BENSON. No; I do not.

Senator HOPKINS. Do you know how they are organized, as to whether they are private banks or banks that are authorized by the laws of some of the States of the Union?

Mr. BENSON. Well, Ehrmann & Co. are private bankers, I understand, and Brandon & Bros. are private bankers—at least that is my understanding. The American Trade Developing Company is another United States corporation, I should imagine from the name, although I am not advised as to that. It may be a Panamanian concern.

Senator HOPKINS. These banks are all responsible banks, are they not?

Mr. BENSON. They are so considered.

Senator MORGAN. By whom?

Mr. BENSON. The fact that our Government made the arrangement with them would warrant that belief.

Senator MORGAN. Is that all the evidence you have on the subject?

Mr. BENSON. That is all that I have, although as far as Ehrmann & Co. are concerned I learned when I was on the Isthmus that they ranked very high, or were considered as one of the strongest banking concerns down there.

Senator MORGAN. Are they connected in any way with a lottery down there?

Mr. BENSON. Not to my knowledge.

Senator MORGAN. Their prosperity would depend in a material respect upon that fact, would it not, as to whether they had the control of the lottery or not?

Mr. BENSON. It might be a factor in their business.

Senator SIMMONS. Do they make deposits of any sort with the Government to secure the Government against loss in these transactions?

Mr. BENSON. I do not see, under the agreement, where the Government is taking any risk, if the disbursing officer secures his money when he negotiates his draft.

Senator SIMMONS. Does he always do that?

Mr. BENSON. I assume that he does that. I would be very much surprised if I learned that he did not.

Senator KNOX. Does the Government make any deposits in these banks?

Mr. BENSON. No.

Senator KNOX. Or do any of the officers of the Government make any deposits of Government funds in the banks there?

Mr. BENSON. If they do, they do it at their own risk.

Senator KNOX. They have no authority to do that?

Mr. BENSON. They have no authority to do that.

Senator KNOX. So far as you know, the transaction between these banks and the United States Government is simply this: That the United States disbursing officers draw their drafts on the subtreasury at New York and present them at the counter of the bank and take out the cash and take it away?

Mr. BENSON. Yes, sir.

Senator KNOX. So that, so far as you know, the United States Government does not incur a penny of risk in dealing with these institutions?

Mr. BENSON. That is right.

Senator KNOX. That is the way I understand it.

Senator SIMMONS. I thought I understood you a little while ago to say, in response to a question asked by Senator Morgan, that they deposited the drafts before they needed the money?

Senator KNOX. No, Senator. He explained that afterwards.

Senator SIMMONS. I was not here when he explained it.

Senator KNOX. This is the point—we all got confused on it, I think: The disbursing agent gets the money placed to his credit in New York two weeks before he needs the money and then he draws against that credit.

Senator SIMMONS. I see. I was not here when he made the explanation.

Senator HOPKINS. And he draws through the banks on the Isthmus.

Senator KNOX. And they pay him the cash. It is just as if you were traveling abroad, and you go in with your letter of credit and present it to a bank that you never saw or heard of before and they will give you so much money against your draft.

Senator SIMMONS. Yes, I see; but that was not the view in which it was first presented.

Senator KNOX. No; I did not have that notion at first.

Senator MORGAN. Mr. Benson stated that they usually drew two weeks in advance.

Senator SIMMONS. That is the way I understood him.

Senator KNOX. The disbursing officer does that. That is the way the confusion arose.

The CHAIRMAN. My understanding is, Mr. Benson, that none of your disbursing officers keep money in any bank?

Mr. BENSON. They have no authority to do it. If they do it, they do it at their own risk.

The CHAIRMAN. That has been my understanding.

Senator GORMAN. Mr. Benson, while we are on that particular subject, I notice that there are four corporations named in that agreement—that is to say, that Ehrmann & Co. are to have 30 per cent of the business, Isaac Brandon & Bros. 30 per cent, the International Banking Corporation 25 per cent, and the American Trade Developing Company 15 per cent. Do you keep an account with all four of these corporations?

Mr. BENSON. We have no accounts with them. The account is purely a financial one. It is handled by the disbursing officer. He draws his checks as he needs his money and divides it up according to the agreement with these bankers.

Senator GORMAN. As to the amount that you pay for the drafts, how does that get into your books? How does it yet back to you?

Mr. BENSON. By a voucher that is rendered on the Isthmus, from an account that is rendered by the banks, showing the amount of money that they have advanced on these drafts.

Senator GORMAN. On which the three-quarters of 1 per cent, or whatever it is, is stated?

Mr. BENSON. It is stated.

Senator GORMAN. Then you enter on your books that amount?

Mr. BENSON. As an expenditure.

Senator GORMAN. Who certifies to that?

Mr. BENSON. That is certified to by the disbursing officer and the local auditor on the Isthmus, and approved by the governor.

Senator GORMAN. And approved by the governor?

Mr. BENSON. Yes.

Senator GORMAN. I notice that the same arrangement is made for the Canal Commission as well as the railroad. Does it come to you separately, or as one account?

Mr. BENSON. No; separately. The account of the railroad goes to the New York office. The account is settled on the Isthmus in the same manner that it would be for the Commission.

Senator GORMAN. Do you find any difficulty in auditing these accounts, in keeping the railroad and the Commission accounts separately?

Mr. BENSON. No; the line is very clearly drawn. We treat them as separate as we would two distinct corporations.

Senator GORMAN. You have two sets of books?

Mr. BENSON. Two sets of books.

Senator GORMAN. So that there is no possibility, under your system, of duplication?

Mr. BENSON. None at all; they are entirely separate and distinct—foreign from each other.

Senator GORMAN. It is a fact, however, that with the railroad accounts you have nothing to do except to make a copy of what transactions occur in New York?

Mr. BENSON. I beg pardon?

Senator GORMAN. I say, as a matter of fact, you have nothing to do with the railroad accounts except to make a copy of them?

Mr. BENSON. We get the results, the final results, in the Washington office; no account is kept here.

Senator MORGAN. All the silver money that is used down there is of Panama coinage, is it not?

Mr. BENSON. Yes, sir.

Senator MORGAN. There is no United States coinage used there?

Mr. BENSON. No.

Senator MORGAN. The Panama Government furnishes that?

Mr. BENSON. Yes.

Senator MORGAN. Under the stipulations of this agreement?

Mr. BENSON. Yes.

Senator MORGAN. Does it charge anything for furnishing it?

Mr. BENSON. It would be furnished under this agreement, whereby our disbursing officer would draw his check on New York and state to the bankers how he wanted it divided—so much in United States currency and so much in Panamanian silver.

Senator MORGAN. The money is coined in the United States?

Mr. BENSON. I do not know as to that; I presume it is.

Senator MORGAN. The provision of this stipulation provides for that.

Senator SIMMONS. That million dollars that was authorized I know was coined in the United States.

Senator MORGAN. Yes. Well, it is provided there that the Panama Government shall issue the silver coin. I suppose that must mean that it shall pay it out; not give it away, but pay it out for debts, or something of that kind.

Senator GORMAN. They simply coin it.

Senator KNOX. That they shall be liable for it; I think it means to issue it in that sense—to emit it.

Senator MORGAN. Do you know how this silver money that is used in payment of these silver pay rolls gets into these banks from which it is withdrawn—whether it is deposited by the Government of Panama or by private depositors, or how it gets in there?

Mr. BENSON. I heard, when I was on the Isthmus, of a large amount of that Panama silver being turned over to the bankers at a very low rate of interest. It was gossip; I do not know anything about it.

Senator MORGAN. You do not know about it?

Mr. BENSON. No, sir.

Senator MORGAN. It was turned over by the Government?

Mr. BENSON. By the Panama Government; yes, sir.

Senator MORGAN. At a low rate of interest?

Mr. BENSON. Yes.

Senator MORGAN. There must be some way of getting it into the banks; otherwise they would not have it to pay. Now, I suppose that when these laborers receive their pay in silver, some of them, at least, want to send their earnings or part of their earnings home to



their respective families. Do you know about the business that is conducted in that regard?

Mr. BENSON. They would go to the bank and get a draft.

Senator MORGAN. For which they would have to pay what per cent?

Mr. BENSON. I think that is provided for in the agreement here. I do not remember just what it is. [After examining agreement.] "At a rate which shall not exceed 2 silver pesos and 3 cents Panama currency for each \$1 United States currency."

Senator MORGAN. What page do you read from?

Mr. BENSON. Page 46.

Senator MORGAN. That is a stipulation in favor of the men that want to buy checks to send home?

Mr. BENSON. Yes.

Senator MORGAN. That it shall not exceed that. It runs up to the limit, does it not?

Mr. BENSON. I do not understand you.

Senator MORGAN. I mean by that that when you say "it shall not exceed it," it certainly costs that much?

Mr. BENSON. I have never had occasion to buy a draft; I do not know what I would have to pay if I were down there.

Senator MORGAN. Yes. Then the provision is that the disbursing officer shall draw this silver money from these banks and pay a quarter of 1 per cent on it, and pay it out to the laborers; and if they want to send it out, the banks have a right to charge them up to the limit of 2 per cent?

Mr. BENSON. Three per cent.

Senator MORGAN. Three per cent?

Mr. BENSON. That is, 3 cents of Panama money; 1½ cents of our money.

Senator MORGAN. Yes. All that percentage for checks paid for, to be sent abroad, comes out of the laborer.

Mr. BENSON. Yes.

Senator MORGAN. But the bank gets the profit either way it runs. It gets a profit of a quarter of 1 per cent in holding the money and paying it to the United States, and then a profit upon such parts of it as the laborers want to invest in checks to send abroad?

Mr. BENSON. Yes.

Senator MORGAN. That ought to be a good operation. Is all of this financial transaction conducted under this agreement?

Mr. BENSON. In respect to drawing money for the payment of our men?

Senator MORGAN. Yes.

Mr. BENSON. It is at the present time.

Senator MORGAN. It is being conducted now under this agreement?

Mr. BENSON. It is being conducted now under this agreement.

Senator MORGAN. Is that a treaty, or is it a modus vivendi? It is not a law, is it? What do they call this, a modus vivendi or a treaty?

Mr. BENSON. I never heard it named.

Senator MORGAN. You never heard it named?

Mr. BENSON. No, sir.

Senator MORGAN. Well, it is not a law of the United States? You have never seen any such law of the United States, have you?

Mr. BENSON. No; I have not.

Senator MORGAN. That is all I want to ask you.

Senator GORMAN. Mr. Benson, I understand you to say that you have about 22 clerks under you here in Washington?

Mr. BENSON. Yes.

Senator GORMAN. You have a deputy auditor, have you?

Mr. BENSON. Yes; I have a deputy. About half of the force is on claim work, checking claims for supplies and auditing those accounts.

Senator GORMAN. You have about 70 or 100 on the Isthmus?

Mr. BENSON. There are 15 in the railroad work and, I think, 53, according to the last roll, on the canal work in the Zone.

Senator GORMAN. The railroad auditors are not under you at all?

Mr. BENSON. Yes; the railroad auditors are under me.

Senator GORMAN. They are—on the Isthmus?

Mr. BENSON. Yes.

Senator GORMAN. I thought you said they reported directly to the auditor of the railroad company in New York.

Mr. BENSON. He reports there as far as his detail work is concerned; his accounts are reported to New York, and are consolidated on the general books of the Panama Railroad Company that are kept in New York. He also reports to me other matters; but the routine work of his office in respect to the accounts is conducted with the New York office.

Senator GORMAN. I do not quite understand that. Are you responsible for the auditing of the accounts of both the road and the canal, then?

Mr. BENSON. In a general supervisory way only, so far as the railroad is concerned. I have no detail work to do in connection with the railroad.

Senator GORMAN. That is a rather unusual condition, is it not?

Mr. BENSON. No. The prime reason of it is that the accounts of the two organizations are so intermingled, and the building of the canal is so dependent upon the railroad, that it is quite essential that there should be one head to all departments. That is exemplified in respect to the manager of the railroad, Mr. Stevens, who is also the chief engineer of the canal construction. Mr. Shonts, the chairman, is also president of the Panama Railroad. Mr. Ross, the general purchasing officer of the Commission, is also general purchasing officer of the railroad.

Senator GORMAN. Who determines, then, the charges that shall be made to each?

Mr. BENSON. I did not catch that.

Senator GORMAN. For instance, Mr. Stevens is on the Isthmus as chief engineer and in charge of the railroad. He purchases shovels, or any article. He determines then and there, simply by his own motion, that those shovels shall be charged to the railroad or to the Commission, does he?

Mr. BENSON. No; they are requisitioned by the railroad for their own uses. The requisitions for the railroad and the supplies for the railroad are kept separate from the supplies of the Commission.

Senator GORMAN. When he orders goods he determines to which they shall be charged? Is that it?

Mr. BENSON. Well, yes. If he wanted to order material for the railroad he would designate it as railroad material. If he wanted to order it for the Commission he would designate it as such.

Senator GORMAN. I see. It depends solely upon his judgment, then?

Mr. BENSON. Yes.

Senator GORMAN. What salaries are you paying to your chief men—for instance, your deputy auditor here?

Mr. BENSON. He gets \$2,800 a year.

Senator GORMAN. How is it on the Isthmus?

Mr. BENSON. The local auditor of the Commission gets \$4,500. The auditor of the railroad in New York gets \$275 a month.

Senator GORMAN. Then how are you compensated?

Mr. BENSON. I receive a salary of \$10,000 a year.

Senator GORMAN. From whom?

Mr. BENSON. From the Isthmian Canal Commission.

Senator GORMAN. From the Commission?

Mr. BENSON. Yes.

Senator GORMAN. You receive nothing from the Panama Railroad?

Mr. BENSON. No.

Senator GORMAN. How do you get your status in the railroad?

Mr. BENSON. By appointment of the president of the railroad.

Senator GORMAN. He appoints you as the chief auditor of that road without compensation?

Mr. BENSON. Yes. The extending of my jurisdiction over the railroad had no effect in respect to reducing their expenses. They had to maintain their old organization so long as the accounts were kept in New York, and there was no reason why, for the small service I rendered the railroad, they should pay me any salary.

Senator GORMAN. I see.

Senator HOPKINS. The railroad is simply one of the agencies of the Commission in the construction of the canal?

Mr. BENSON. That is the idea.

Senator HOPKINS. And is treated, in a way, as a separate bureau on the Isthmus would be?

Mr. BENSON. Largely so.

Senator GORMAN. Not altogether so?

Mr. BENSON. Well, outside of the commercial feature it is wholly so.

Senator GORMAN. Why do you say that?

Mr. BENSON. Because we use the railroad to enhance the work of the canal. Without the railroad we would be very much at sea.

Senator GORMAN. As to the use of it; but the railroad receipts go into the railroad treasury?

Mr. BENSON. Yes.

Senator GORMAN. And are not accounted for in the Treasury of the United States?

Mr. BENSON. No.

Senator GORMAN. They are subject alone to the control of the board of directors of that company. Therefore it is an independent organization, such as the one you were connected with before you entered the Government service?

Mr. BENSON. Yes.

Senator GORMAN. It can not be treated, so far as its accounts go, as

the Commission accounts are treated; they pass through the Auditor for the War and Navy Departments?

Mr. BENSON. The War Department.

Senator GORMAN. The War Department, and then finally to the Treasury?

Mr. BENSON. Yes.

Senator GORMAN. The railroad accounts do not?

Mr. BENSON. They do not.

Senator GORMAN. In rendering service for the railroad, in traveling from here to New York to look over and superintend your subordinates over there, you are allowed, I take it, expenses by the railroad?

Mr. BENSON. Yes.

Senator GORMAN. How much does the expense account amount to since you have been in office?

Mr. BENSON. I should say that since the 1st of May it may have amounted to \$250.

Senator GORMAN. And your trip to Panama also?

Mr. BENSON. No, sir; that is for my trips to New York. I go to New York two and three times a month.

Senator GORMAN. How about the excursion to the Isthmus?

Mr. BENSON. My expenses to the Isthmus—I think I have them in my pocket. I have only made one trip there. [After consulting memorandum.] I was away two months, and my expense account was \$148.55.

Senator GORMAN. Was that paid by the Commission or by the railroad?

Mr. BENSON. It was paid by the Commission.

Senator GORMAN. So that you receive \$10,000 and your actual expenses either from the railroad company or from the Commission?

Mr. BENSON. Yes; when I am away from Washington.

Senator GORMAN. When you are away from Washington. Of course you have no expense account here? .

Mr. BENSON. I have none here.

Senator GORMAN. No. That is \$10,000. What does the Auditor of the War Department receive? Do you know? Have you any idea?

Mr. BENSON. Why, I have heard that he got something like four or five thousand dollars. I do not know. I never looked it up.

Senator GORMAN. Who fixed your compensation?

Mr. BENSON. The Commission. That is, they approved of it. The records show.

Senator GORMAN. They show what?

Mr. BENSON. That my compensation was to be \$10,000 a year.

Senator GORMAN. I say your compensation was fixed by the Commission?

Mr. BENSON. Yes.

Senator GORMAN. That was tendered to you before you accepted this service?

Mr. BENSON. Yes. I was with the Southern Pacific Company at the time, with a life job ahead of me, at a good salary, with good prospects of promotion, and I could not, in justice to myself and family, have considered coming with the Government at any less salary.

Senator GORMAN. You received an increased salary, of course, from the Government, compared with that you received in the railroad service?

Mr. BENSON. Yes. I was getting \$7,000 a year.

Senator MORGAN. Who is the law officer of your particular branch of this work, the auditing branch?

Mr. BENSON. Paul Charlton, of the Insular Bureau, passes on any legal points that we want to refer to a lawyer. We have law clerks, men who are law students, in our claim department.

Senator MORGAN. Who is the law officer of the Panama Railroad?

Mr. BENSON. Mr. Cromwell.

Senator MORGAN. Mr. William Nelson Cromwell?

Mr. BENSON. Yes.

Senator MORGAN. Do you have to confer with Mr. Cromwell about audits that you make of the railroad accounts?

Mr. BENSON. I have never had that occasion. No, sir; I have not had that occasion yet.

Senator MORGAN. If you had occasion to confer with a lawyer, would you go to him?

Mr. BENSON. I probably would; yes, naturally.

Senator MORGAN. That is all I want to know about that.

Senator GORMAN. Mr. Benson, I understood you to say that when you took possession of this office the accounts were not in very good condition?

Mr. BENSON. There was no organized system of accounts in the sense of the plan on which accounts are supposed to be run.

Senator GORMAN. Then what occurred?

Mr. BENSON. Immediate steps were taken to organize and promulgate a system of accounts and prepare blanks.

Senator GORMAN. Yes; but I mean as to the old accounts? What did you do with them?

Mr. BENSON. The old accounts were examined by an independent audit company; I think its name is the Public Accountants' Corporation, of New York. Colonel Ehrhart is the president of it. They were hired by the present Commission to examine the accounts of the prior Commission.

Senator GORMAN. And to state the whole account from the beginning of this transaction up to the date of the organization of the new Commission?

Mr. BENSON. Yes.

Senator GORMAN. Did that embrace the railroad account as well as the Commission account?

Mr. BENSON. No.

Senator GORMAN. They were made separately?

Mr. BENSON. There was no audit made of the railroad account.

Senator GORMAN. None whatever?

Mr. BENSON. Not at that time.

Senator GORMAN. Has there been such an audit made, so as to bring it up to the date of the organization of the new Commission?

Mr. BENSON. There was no division made as of the date of the appointment of the new Commission in the railroad account.

Senator GORMAN. Is there any way in which we can ascertain just what the railroad company expended, and on what account, from the

day that we took possession of the property until the advent of the present Commission?

Mr. BENSON. Yes; we could, if the transfer was not made in the middle of the month. If it was made in the middle of the month it could not be done at this time.

Senator GORMAN. It could be done up to the full month, though?

Mr. BENSON. The full month; yes.

Senator GORMAN. How about your accounts? Are they made to the 1st day of February, so that we can ascertain how much was expended by the old Commission up to the 1st day of February, 1905, if that is the date when the new Commission entered upon its duties?

Mr. BENSON. The 3d of April; we made that division as of the 3d of April. That division is being maintained to-day. If we pay any obligation incurred by the old Commission we show it as prior to April 3.

Senator GORMAN. I see. Can you furnish a statement of the entire gross payments in money by the old Commission from the beginning up to the 3d day of April?

Mr. BENSON. Yes.

Senator GORMAN. And then itemize it?

Mr. BENSON. That has been furnished. Mr. Millard has that now, up to June 30, and I do not know how much later; I think up to September 30.

The CHAIRMAN. Not an itemized statement.

Senator GORMAN. No; I am getting at an entirely different statement now. I want a statement of the entire gross payments by the old Commission from the date of their organization until the 3d day of April, when you say you took possession.

Mr. BENSON. In how much detail?

Senator GORMAN. I will state it to you in a moment. First, the gross amount; then the gross amount of liabilities incurred by the old Commission under contracts for material, excluding, of course, the material for the railroad. That is separate. This is for the canal work.

Mr. BENSON. Yes.

Senator GORMAN. Also the amount that they paid in compensation for officers; also the amount expended for laborees—two separate items. You say you can not get that same information in regard to the railroad, except through some outside firm in New York?

Mr. BENSON. No; I said that there was no division made as of the operations of the railroad prior and subsequent to the appointment of the present Commission.

Senator GORMAN. Can not this outside firm make that division?

Mr. BENSON. They were hired to examine the accounts of the Walker Commission, but not of the railroad company.

Senator GORMAN. Not of the railroad company? And that has never been audited and brought up to date?

Mr. BENSON. No independent audit has been made.

Senator GORMAN. No independent audit?

Mr. BENSON. No.

Senator GORMAN. What do your books show about it; just a continuation of the accounts?

Mr. BENSON. The continuation of the account down to date. We have rendered a ten months' report, bringing the account of the rail-

road down to October 31, which has been submitted to Congress. I have a copy of it here.

Senator GORMAN. What date does that come to?

Mr. BENSON. To October 31, ten months of the last year.

Senator GORMAN. That does not run to the time the United States acquired the property?

Mr. BENSON. No, sir; there was a report published for the fiscal year 1904, which covered the whole period. I am not advised as to the date when the United States purchased the property.

Senator GORMAN. So that there is no complete statement running from the date we took possession of the railroad until the end of the last fiscal year, the 30th of June?

Mr. BENSON. The fiscal year of the railroad ends with the calendar year.

Senator GORMAN. It ends with the calendar year?

Mr. BENSON. Yes. [Handing report to Senator GORMAN.]

Senator GORMAN. This is the report of the board of directors of the Panama Railroad Company to the Isthmian Canal Commission for the ten months ending October 31, 1905. That is the annual report. This seems to be a different one which you have handed me, Mr. Benson.

Mr. BENSON. That is the same report, I think, Senator, that was published by Congress.

Senator GORMAN. For the ten months ending October 31?

Mr. BENSON. Yes.

Senator GORMAN. Yes, that is right; you are quite right. It is contained in the report.

Mr. BENSON. Yes.

Senator GORMAN. I take it from what you say that the auditor of the railroad company in New York—what is his name?

Mr. BENSON. Mr. John Adams.

Senator GORMAN (continuing). Mr. John Adams—is the man who gave the detail of this matter?

Mr. BENSON. He is the man that worked up the figures. I arranged the report and delegated the manner in which the report should be rendered. That is the accounting feature of the report.

Senator GORMAN. But, as I understood you to say, his action is final?

Mr. BENSON. His action is final.

Senator GORMAN. You do not review it at all?

Mr. BENSON. No. My duties, as far as the Panama Railroad Company are concerned, are confined to a general supervision and to prescribing forms, but not to auditing the accounts—the detail work.

Senator GORMAN. I see; and yet you select the subordinates on the Isthmus to conduct that work?

Mr. BENSON. The railroad organization was there when I took hold. I approve the appointments of the new men and approve the pay roll of the Isthmus office.

Senator GORMAN. I understood you to say a moment ago that when you assumed your duties here you found rather an inefficient corps, because they came through the civil service, and you had that amended and selected competent men; you brought them from the railroads?

Mr. BENSON. I think you got the wrong idea. That referred to the canal work. I am talking of the railroad now.

Senator GORMAN. Yes.

Mr. BENSON. As to the canal work, there was no organization of any account on the Isthmus. There had been a local auditor appointed, Mr. West, who died of the yellow fever. I think there were three men left on the Isthmus when we opened up the office in business shape on the first of July. We retained those men; and then, to secure an efficient force of experienced accountants, I secured the authority of the Commission to make certain selections outside of the classified service, it being deemed rather difficult to start in on a work of that kind and magnitude with inexperienced help.

Senator GORMAN. How many men did you employ as accountants that you had to select outside of the civil service?

Mr. BENSON. I suppose we must have employed perhaps 15; perhaps 20. I would not be able to say without looking the matter up.

Senator GORMAN. Did you find them more efficient than those who passed the civil service?

Mr. BENSON. The building of the canal and the accounting work is a great deal like the building of a railroad and accounting for railroad expenditures. Men versed in railroad accounting would be better fitted for that work than any men you could get in any other walk of life. My selections were confined to that class of men.

Senator GORMAN. Now, Mr. Benson, as to the entries here on your books, the auditing, you have exclusively under your control everything that is contracted for by the Commission in Washington?

Mr. BENSON. Yes.

Senator GORMAN. And you make the original entries on your books of all contracts that are entered into?

Mr. BENSON. Yes.

Senator GORMAN. And the prices?

Mr. BENSON. Yes.

Senator GORMAN. To what extent have you supervision in regard to the prices to be paid under these contracts which are entered into?

Mr. BENSON. None. We receive a copy of the order and the bid of the party to whom the order is awarded.

Senator GORMAN. And you have no supervision at all of that?

Mr. BENSON. No. We see that the account is paid in accordance with the bid.

Senator GORMAN. And if the prices were too high you have nothing to do with that?

Mr. BENSON. Nothing.

Senator GORMAN. That is determined by whom?

Mr. BENSON. By the general purchasing officer, who makes the award. These bids are opened in public, and the award is made by him.

Senator GORMAN. Does the purchasing officer make the award or the board?

Mr. BENSON. I think he consults the chairman.

Senator GORMAN. The Commission does not act on the bids as a commission?

Mr. BENSON. I do not think so.

Senator GORMAN. For instance, take the contract for all these engines and railroad cars.



Mr. BENSON. In the case of large contracts of that kind they might; I would not undertake to say; but in the case of ordinary current purchases they would not.

Senator GORMAN. As a matter of fact, then, you do not know how it is done? You are not present; you are not a party to it?

Mr. BENSON. I am not a party to it.

Senator KITTREDGE. Did I understand you to say that the Commission had loaned \$400,000 to the railway company?

Mr. BENSON. They advanced that amount to the railroad company of the indebtedness which the Commission owed the railroad company. They were behind, on account of our appropriation running out, in the payment of the bills due the Panama Railroad Company, and they advanced \$400,000.

Senator KITTREDGE. Was that the exact amount of the difference?

Mr. BENSON. We owed them more than that at that time. We owed them over \$600,000 when we advanced the \$400,000.

Senator KITTREDGE. And when was that advance made?

Mr. BENSON. The advance was made early in December, I think; some time in December.

Senator MORGAN. 1905?

Mr. BENSON. 1905.

Senator KITTREDGE. And how much left of that indebtedness remains unpaid?

Mr. BENSON. Why, we are probably owing them now \$100,000; possibly more. I could not say exactly.

Senator ANKENY. That is, the Commission owes the railroad that much?

Mr. BENSON. The Commission owes the railroad that much.

Senator KITTREDGE. Why has not that sum been paid?

Mr. BENSON. The accounts are not audited.

Senator KITTREDGE. And it will be paid out of the eleven millions appropriated by Congress in December?

Mr. BENSON. Yes.

Senator KITTREDGE. In what respect do your duties as auditor of the Commission differ from the duties of the Auditor of the War Department?

Mr. BENSON. We make and audit in advance of the payment of the account and keep statistical information and compile information that the Auditor of the War Department, I understand, does not do, or at least would not do for the Commission. He would simply state the aggregate amount of the expenditures. We provide ways and means for disbursing this money and keeping a check on it and the handling of the property, the material accounts of the Government, in a great deal of detail.

Senator KITTREDGE. Where do your accounts go after you have passed upon them?

Mr. BENSON. The vouchers, the pay rolls, go to the Auditor of the War Department, with the account of the disbursing officer who makes the disbursement.

Senator KITTREDGE. Before any money is paid the Auditor of the War Department or some of his subordinates must pass upon your account?

Mr. BENSON. No; this is after the money is paid. His audit is made after the money has been paid.

Senator KITTREDGE. Then before the disbursing officer can get credit for the amount that he has already paid the Auditor of the War Department must pass upon your accounts?

Mr. BENSON. He must pass upon the accounts.

Senator KITTREDGE. And your disbursing officer can not receive any credit until that action has been taken?

Mr. BENSON. Not on the books of the War Department, of the Treasury Department. He receives credit on the books of the administrative audit office on the audit that I make, the one made under my supervision.

Senator KITTREDGE. I do not quite understand the difference between the audit made by your office and that made by the Auditor of the War Department.

Mr. BENSON. We make the audit in advance of the payment of the money. We protect the Government and the disbursing officer to that extent. There is no protection to the disbursing officer or to the Government in an account that is audited after the money has been paid out, if it has been improperly paid.

Senator KITTREDGE. What is the nature of this statistical information which you have mentioned?

Mr. BENSON. It classifies the expenditures of the Commission and keeps the general accounts of the Commission, showing the financial status of the enterprise, the building of the canal, and the operation of the Canal Zone from its inception down to a given date.

Senator KITTREDGE. From what source did you obtain the employees in your office in Washington—through the Civil Service Commission?

Mr. BENSON. Through the civil service?

Senator KITTREDGE. Entirely?

Mr. BENSON. Except in one instance. I have one man outside of the classified service.

Senator KITTREDGE. And what is his official position?

Mr. BENSON. He is in charge of the division of accounts and goes to the Isthmus (he is on the Isthmus now) to assist the local auditor down there in organizing. We are still in the formative state in a good many matters.

Senator KITTREDGE. What salary does he receive?

Mr. BENSON. He gets \$2,100 a year from the Commission and \$25 a month from the railroad. He does a great deal of railroad work.

Senator KITTREDGE. Do the employees in your office furnished by the Civil Service Commission receive greater compensation than employees in the Departments of the Government performing like service?

Mr. BENSON. I think not. In fact, in some cases we are considerably below, I think.

Senator KITTREDGE. How about your deputy auditor? Does he receive greater compensation than the Deputy Auditor of the War Department?

Mr. BENSON. I do not know what the Deputy Auditor of the War Department does receive. I never looked it up.

Senator KITTREDGE. As I recollect, your deputy auditor receives \$2,800?

Mr. BENSON. Two thousand eight hundred dollars.

Senator HOPKINS. Mr. Benson, what is your age?

Mr. BENSON. I am 50 years old.

Senator HOPKINS. How long have you been in the railroad business?

Mr. BENSON. Since 1871.

Senator HOPKINS. In what capacity did you enter the service?

Mr. BENSON. As a clerk in the local office of the Chicago, Burlington and Quincy, at Streator, Ill.

Senator HOPKINS. At what salary?

Mr. BENSON. I think I started at a dollar a day.

Senator HOPKINS. And you were promoted from time to time to what positions until you reached the one that you held when you came into the Government service?

Mr. BENSON. I left the Chicago, Burlington and Quincy in 1874 to accept the position of chief clerk in the auditor's office of the Chicago and Paducah Railroad. That road was subsequently absorbed by the Wabash. I was retained by the Wabash as traveling auditor for five years and was also subsequently made cashier for the Wabash Railroad in Chicago.

Senator HOPKINS. At what salary?

Mr. BENSON. I was getting \$150 a month. In 1888 I was made auditor of the Indiana, Illinois and Iowa Railroad. I was with that company a year. From there I went to the Iowa Central as auditor and general auditor. I was there for five years at a salary, I think, of \$350 a month. When I left there I went from there to Portland, Oreg., as general auditor for the receiver of the Oregon Railway and Navigation Company, at a salary of \$6,000, and I remained there for ten years. I was transferred to the Southern Pacific lines east of El Paso in November, 1904, and remained there only five or six months, when I came with the Commission. My salary there was \$7,000.

Senator HOPKINS. In taking a position in the Government service you destroy your chances of promotion in the service in which your life work was performed?

Mr. BENSON. I might say entirely so. The leading railroads of the United States have established a maximum age at which they will take on a man. That age is forty-five years with the Harriman lines, and I think so with some other lines; so that a man severing his connection with the railroad at my age simply burns his bridges behind him.

Senator HOPKINS. And for that reason you were unwilling to give up the service in which you had spent so many years and the chances of promotion that were ahead of you unless you had a compensation such as you have stated—\$10,000 a year?

Mr. BENSON. That is right.

Senator HOPKINS. That is all.

Senator MORGAN. On which of these roads did I understand you to say that you were auditor?

Mr. BENSON. I was auditor of the Indiana, Illinois and Iowa.

Senator MORGAN. Has that road any transcontinental connections?

Mr. BENSON. No; it did not have at that time. I do not know how it is now. The Iowa Central has none.

Senator MORGAN. That has no transcontinental connections?

Mr. BENSON. No; and the Oregon Railroad and Navigation Company.

Senator MORGAN. That has?

Mr. BENSON. That has; yes. That is the Pacific coast terminus of the Union Pacific system.

Senator MORGAN. Yes. Then the Southern?

Mr. BENSON. The Southern Pacific lines in Texas—yes, you might call them part of the transcontinental lines; they handle transcontinental traffic via the Gulf gateways.

Senator MORGAN. Now, you were auditor upon the Oregon lines and also upon the Southern Pacific line?

Mr. BENSON. Yes.

Senator MORGAN. And they are both transcontinental lines?

Mr. BENSON. Yes.

Senator MORGAN. How about the Wabash, of which you speak—you were not auditor of that?

Mr. BENSON. No; I was a traveling auditor.

Senator MORGAN. Yes. In your auditing of your accounts of these two transcontinental roads, or either of them, did you examine and did there pass under your knowledge any accounts in reference to transit across the Isthmus of Panama?

Mr. BENSON. No; I would not have those matters.

Senator MORGAN. By an agreement that has been produced here and that has figured before Congress the transcontinental railroads, including the Southern Pacific, had a contract with the Pacific Navigation Company, or through the Pacific Navigation Company, with the Panama Railroad Company for billing goods on through bills of lading from New York to San Francisco and elsewhere up the coast there, in which contract there was a provision that these railroads would pay a monthly stipend to the Panama Railroad Company, amounting, I think, to about \$75,000, for space in which no freight at all was carried. Had you any knowledge of that transaction?

Mr. BENSON. No.

Senator MORGAN. In your auditing of accounts?

Mr. BENSON. No.

Senator MORGAN. You have not audited any claims between the different transcontinental railroads relating to that contract?

Mr. BENSON. Not to my knowledge, no; I never heard of it.

Senator MORGAN. You never heard of it? That is what I wanted to ask you about.

Senator SIMMONS. I just want to ask the witness about his auditor on the Isthmus. What did you say his name is?

Mr. BENSON. W. B. Stark.

Senator SIMMONS. Where did you get him from?

Mr. BENSON. The Atlantic and North Carolina Company, Goldsboro, N. C.

Senator SIMMONS. Do you know how long he had been with that company?

Mr. BENSON. I do not know.

Senator SIMMONS. Do you know the length of that road?

Mr. BENSON. No; it is a comparatively small road, I think.

Senator SIMMONS. It is about 100 miles in length, is it not?

Mr. BENSON. I should suppose it was all of that.

Senator SIMMONS. Do you know what salary he was getting there?

Mr. BENSON. No; I do not.

Senator SIMMONS. What salary is he getting as auditor on the Isthmus?

Mr. BENSON. Forty-five hundred dollars.

Senator SIMMONS. Do you know what his experience in connection with this kind of work has been?

Mr. BENSON. He had been with the Southern Railway here in Washington, as one of the subagents under Mr. Plant.

Senator SIMMONS. Do you know what he had been getting from the Southern Railway as one of its subauditors?

Mr. BENSON. No; I do not. I know he is a very capable man, and is giving very good satisfaction on the Isthmus—a man of good judgment and tact, resourceful, and a hard worker.

Senator SIMMONS. You did not hear him say what salary he was getting from the Atlantic and North Carolina Railroad?

Mr. BENSON. No; I never did.

Senator SIMMONS. I wanted to ask you about the money due the Panama Railroad for board of employees. Under the arrangement that exists the Panama Railroad runs the commissaries and the hotels, I believe.

Mr. BENSON. They run the commissaries; not the hotels.

Senator SIMMONS. Who runs the hotels?

Mr. BENSON. The Commission; the Government.

Senator SIMMONS. The Government runs the hotels?

Mr. BENSON. Yes.

Senator SIMMONS. Are you sure of that?

Mr. BENSON. Yes.

Senator SIMMONS. When did the Government begin to run the hotels? I thought it was just the other day that the Government had shifted that matter to the Panama Railroad?

Mr. BENSON. The Government used to run the commissaries, and they turned that matter over to the Panama Railroad. They started to run these hotels at different dates. They were run by private parties until some time last summer.

Senator SIMMONS. Do you, in settling with the employees, deduct the amount that they owe the hotels for commissary supplies?

Mr. BENSON. Yes.

Senator SIMMONS. Do you collect that from their wages?

Mr. BENSON. We collect that from their wages. We use coupon books for the hotels and for the commissary uses of our men, of different values or denominations, and collect the amount of their wages.

Senator SIMMONS. And turn it over to the Government—to the Commission?

Mr. BENSON. The collections for board at the Government hotels are turned into the United States Treasury as "Miscellaneous receipts." The value of these coupon books is turned over to the Panama Railroad.

Senator ANKENY. I understood you, Mr. Benson, to say that three-quarters, or 75 per cent or more, of these payments are made in silver?

Mr. BENSON. I should say in that vicinity.

Senator ANKENY. And they are made in Panama silver?

Mr. BENSON. In Panama silver.

Senator ANKENY. For which we bought the silver at 60 cents on the dollar?

Mr. BENSON. No; that referred to postage stamps.

Senator ANKENY. What do we pay for that silver?

Mr. BENSON. Dollar for dollar. Of course, the Panamanian dollar is worth 50 cents in gold.

Senator ANKENY. Exactly. Now, we pay them 50 cents in gold for that?

Mr. BENSON. We pay them 50 cents.

Senator ANKENY. What do we pay them for their silver? I am trying to ascertain what profit there is in this coinage.

Mr. BENSON. I do not know what profit there is in the coinage.

Senator ANKENY. It is quite a little, is it not?

Mr. BENSON. I should suppose so.

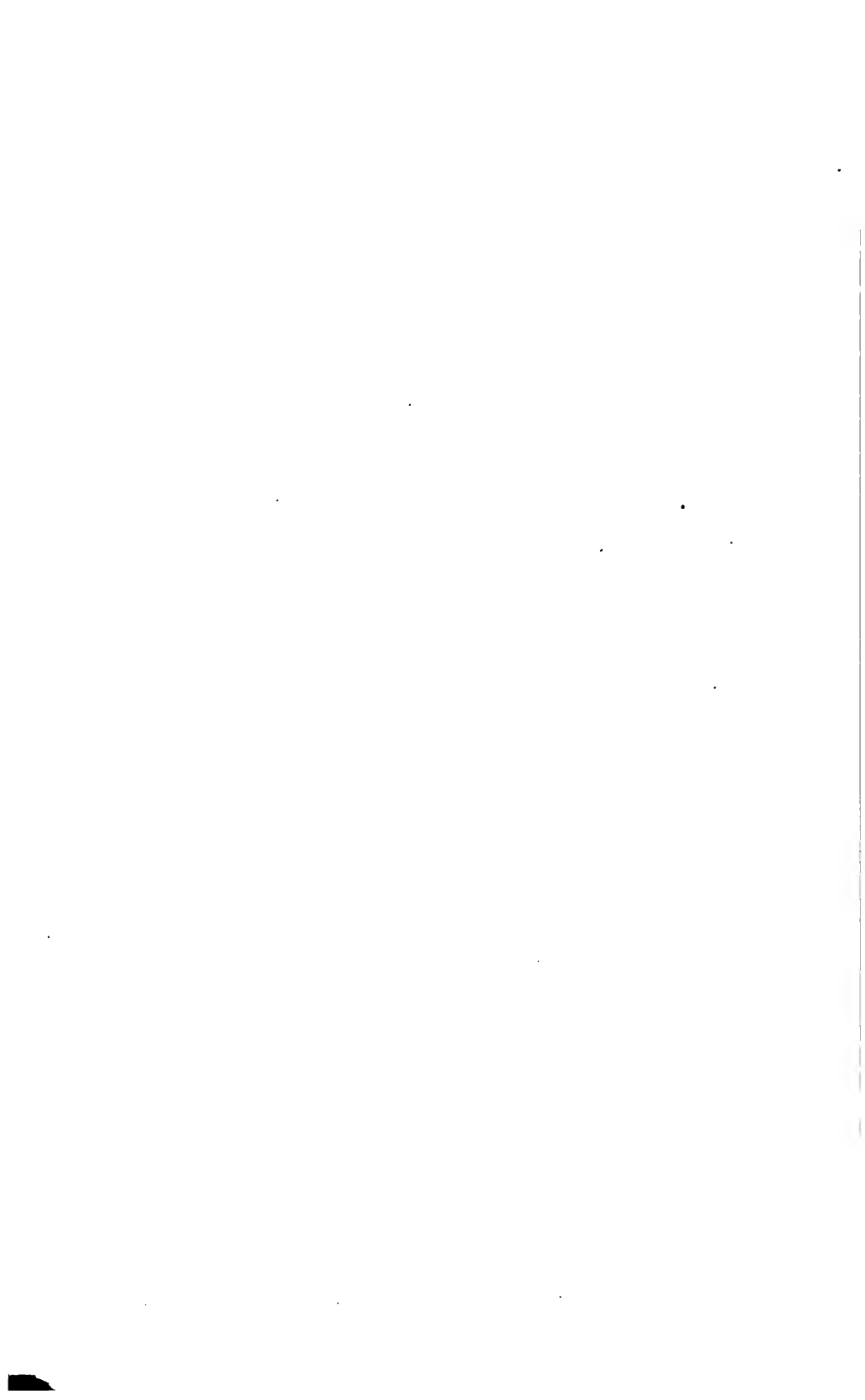
Senator ANKENY. That of course belongs, I understand, Mr. Chairman, to the Panama Government, under contract with us?

The CHAIRMAN. Yes. Mr. Benson, I think we will excuse you now, and we thank you for your attendance here.

Mr. BENSON. Very well, sir.

The CHAIRMAN. We are much obliged to you.

(The committee thereupon went into executive session, after which an adjournment was taken until to-morrow, Tuesday, January 23, 1906, at 10.30 a. m.)



# ISTHMIAN CANAL

---

COMMITTEE ON INTEROCEANIC CANALS,  
UNITED STATES SENATE,  
*Washington, D. C., Tuesday, January 23, 1906.*

The committee met at 10.30 o'clock.

Present: Senators Millard (chairman), Kittredge, Dryden, Hopkins, Ankeny, Morgan, Gorman, and Simmons; also John F. Stevens, esq., chief engineer of the Isthmian Canal Commission.

## **FURTHER STATEMENT OF JOHN F. STEVENS, ESQ., CHIEF ENGINEER OF THE ISTHMIAN CANAL COMMISSION.**

Senator MORGAN. If the chairman will permit me, I will ask Mr. Stevens a few preliminary questions to open up the subject before he makes his statement.

The CHAIRMAN. Go ahead, Senator.

Senator MORGAN. You have read this minority report, Mr. Stevens?

Mr. STEVENS. Yes, sir.

Senator HOPKINS. Will you let me interrupt you one moment, Senator?

Senator MORGAN. Yes, sir.

Senator HOPKINS. Would it not be better for Mr. Stevens to give us a summary of the majority report and a summary of the minority report, to point out the strong points in the majority report and the strong points in the minority report, and state where they agree and where they disagree.

Senator MORGAN. That will be the course of the examination. I will ask Mr. Stevens but a very few questions leading up to that.

Senator HOPKINS. All right. I simply suggested that, with a view of helping the members of the committee who have not made a critical examination of the reports to understand the matter.

Senator MORGAN. I see that the minority brings forward a specific plan for a lock canal and recommends it. In some respects it is a new departure, particularly as to building the dam at Gatun and the locks in the hills back of Gatun. Are those hills on the right or the left bank of the Chagres River?

Mr. STEVENS. On the right bank.

Senator MORGAN. How far back of Gatun are they?

Mr. STEVENS. They are immediately at Gatun.

Senator MORGAN. Right at the place itself?

Mr. STEVENS. Yes, sir.

Senator MORGAN. Gatun is a little village there?

Mr. STEVENS. Yes, sir.



Senator MORGAN. Have you examined, I may say critically and as an engineer, the various other propositions for a lock canal at Panama? Have you examined the various other propositions for a lock canal there?

Mr. STEVENS. I have known of several other propositions. I have, of course, examined the ground that would be involved in their construction.

Senator MORGAN. Have you examined any of those plans or proposed plans with a view of the possibility of their being adopted by the committee?

Mr. STEVENS. I never have seen any detailed plans; no, sir.

Senator MORGAN. You have not seen any?

Mr. STEVENS. No, sir.

Senator MORGAN. So that in speaking about this particular plan that is brought forward by the minority of the committee, you do not propose to exclude the consideration of all other plans for a lock canal and to adhere to this particular one as the basis for your recommendations?

Mr. STEVENS. I do not quite understand you.

Senator MORGAN. Here are several plans that have been brought forward by engineers of merit, note, ability, some of which have been submitted to the Commission and some of which have not, of which you may have some knowledge; I do not know. In the statement that you propose to make before the committee, do you propose to say that you reject any and all plans except the one recommended by the minority for a lock canal?

Mr. STEVENS. No, sir; I do not mean to say that.

Senator MORGAN. You do not mean to say that?

Mr. STEVENS. No, sir.

Senator MORGAN. So that in the examination of this proposed plan gotten up by the minority of the committee you will contrast that with the sea-level canal?

Mr. STEVENS. Yes, sir.

Senator MORGAN. And upon that basis, I suppose, our examination with reference to this will be conducted, it being understood that if, for instance, a lock-canal plan should be adopted it would not be necessarily this plan. The committee would feel at liberty, and the Congress would feel at liberty, if they found a plan that they believed was better than the one suggested here by the majority and the one suggested by the minority, to investigate it; and we would simply confine ourselves to the consideration of the question as to whether this shall be a sea-level canal or a lock canal, upon the predicate of the report of the majority in favor of a sea-level canal and of the minority in favor of a special plan for a lock canal. That was what I wanted to get at; I wanted to have an understanding about that.

The CHAIRMAN. I do not understand that this is binding upon the committee at all; it is simply for general information.

Senator MORGAN. I will venture to say to the committee and to Mr. Stevens, too, that I think there is at least one plan that may be brought forward that I think is quite superior to the plan proposed by the minority of the committee. I do not know that it will be brought forward, but it may be; and I merely wanted to suggest that if we recommend the adoption of the minority report it should be done with reference simply to the choice between a sea-level and a

lock canal, leaving ourselves open as to a method of construction coming from other sources that might be considered better than this.

Senator HOPKINS. Now, Senator, if Mr. Stevens can now give us a summary of the two reports we will be able to get a more intelligent view of the situation, and we can then examine him with reference to any suggestions that he may have to make in favor of either the majority or the minority report.

Senator MORGAN. That is exactly what I desire on my part; and I merely made these preliminary observations to keep the subject clear in our minds.

The CHAIRMAN. Now, Mr. Stevens, will you proceed?

Mr. STEVENS. Mr. Chairman, I am afraid that Senator Morgan's ideas of my responsibilities in this case do not quite accord with mine. When I came to the Canal Commission as chief engineer there was a delimitation made in the duties of my office, it seemed to me. The powers appointed a board of consulting engineers, to take practically all the time they required, and to have all the assistance they required, to investigate all of these propositions; and presumably their report, when made, would be seriously considered, if not adopted. They were the people to thrash out all of the details; and the consensus of their best judgment was the best that the committee or the President could obtain. Therefore that took from me, in a very large measure, my responsibility in regard to this question; and I have always regarded, and still regard, myself not as a man directly responsible for these reports—either of them—even if I should favor one over the other, or if I should favor something entirely different.

Senator MORGAN. I, for one, am very glad that you feel yourself entirely free from responsibility for these reports, and that you have a free hand to make any observation that you choose to make or think it proper to make in regard to either of them.

Mr. STEVENS. More than all that, when the consulting board were down there in September, I think, I came before them and they questioned me very closely about my predilections and my ideas about the matter. I told them (which was very true) that I had only been there a couple of months, and, as everybody must know, my time was taken up with other very important things.

Senator MORGAN. But you were there during all of that time?

Mr. STEVENS. I was there all of that time, but I had nothing whatever to do with the consulting board. I made only one or two trips with them, and they were left free to gather information from any source they chose. What I want to bring out is this fact—that I do not consider myself responsible for the investigations and the conclusions that have been drawn by anybody.

Senator MORGAN. No; nobody, I think, regards you in that light.

Mr. STEVENS. And in my capacity now I only claim that I act as an adviser of the Commission—to give them my ideas. My ideas may not be any more valuable than those of anyone else who has been there the same length of time.

Senator MORGAN. That is exactly what we consider you—the adviser of the committee.

Mr. STEVENS. In other words, I was not engaged as chief engineer to tell the Commission or the country or anyone else what kind of a canal should be built. They took other means.

Senator KITTREDGE. What did you understand your duty to be?

**Mr. STEVENS.** To build the kind of canal that was chosen to be built, to carry out the details of the work, and to see it built.

**Senator HOPKINS.** You expected to have some considerable voice in determining the character of the canal that you were to build, however, did you not?

**Mr. STEVENS.** I supposed, of course, Senator, that my advice would be asked, as it has been; yes.

**Senator DRYDEN.** You are prepared to give the committee the benefit of your judgment in this matter?

**Mr. STEVENS.** Certainly; certainly.

**Senator GORMAN.** I think Mr. Stevens had better go on now and make his statement.

**Senator MORGAN.** I want to call Mr. Stevens's attention to just one fact before he starts. I notice that in the majority report and also in the minority report the canal is projected (both the sea-level and the lock canals) so as to enter the Bay of Limon almost north, I will say, from Gatun; and they both seem to eliminate that part of the canal that leads through Colon.

**Mr. STEVENS.** Yes, sir.

**Senator MORGAN.** So that I think we perhaps need not pay much attention to the situation there in comparing the two routes. They both agree that the canal should go into the Bay of Limon on nearly a straight line.

**Senator GORMAN.** But, Senator, as this testimony of Mr. Stevens is going in by way of an explanation of this matter to everybody in the Senate, had he not better go on in his own way now and describe the two plans? There may very likely be other Senators who do not know anything about them.

**Senator DRYDEN.** Yes; and I am one of them. I am sure I would be entirely at sea without the benefit of Mr. Stevens's explanation.

**The CHAIRMAN.** Mr. Stevens, you may proceed now and give the committee your judgment in regard to these matters. I think perhaps it would be well for you first to describe the two proposed plans, commencing with the majority report.

**Mr. STEVENS.** I imagine that any explanation I might make would be very blind if I undertook to give a graphic description in words here in the most general terms, without any preparation of the two plans, unless some one should ask me questions to bring out anything that might be desired.

**The CHAIRMAN.** We will ask you the questions when you are through, Mr. Stevens; you will be asked questions then.

**Mr. STEVENS.** The plan reported by the majority of engineers contemplates what is called a sea-level canal, extending from a point about midway in the front of the so-called harbor at Limon.

**Senator KITTREDGE.** Would it be embarrassing to you for me to ask a question at this point?

**Mr. STEVENS.** Not at all.

**Senator KITTREDGE.** Where would that be with reference to the Mindi River?

**Mr. STEVENS.** About opposite the mouth of the Mindi River, where the river debouches from the marshes.

**Senator MORGAN.** By the qualification "so called," that you put in your remark, you mean that neither of them is strictly a sea-level canal—a canal without locks.

**Mr. STEVENS.** I understand not; no, sir. A tidal lock will be necessary even in the case of a canal at sea level. You see these reports are both incomplete, in that the consulting board have never submitted any plans, either of the alignment or of anything else. They have submitted merely the bare report, and the only thing we have to judge from is that report. [Referring to large map in committee room:] Here is Gatum; here is Mindi, Boca Mindi (Boca means mouth), the mouth of the Mindi River. The Little Mindi River comes in here.

The present line of the canal as the French excavated it runs through here to Cristobal, which is here, Colon being on Manzanillo Island. The old line of the canal described this reverse curve of which we spoke the other day. The Bay of Limon, to continue the shore line, runs around here to a point called English Point, right here, which is about two and a half miles directly across from Manzanillo Island or Colon. This bay, so called, might in fact be called an open roadstead. It has no protection whatever. The north is here—here is the north point; so that the prevailing heavy winds, which we call the “northers” (which really come from a few points west of north), sweep directly into this bay, and it affords no protection whatever for shipping during the continuance of the “northers.” The point brought out the other day by Senator Morgan’s question as to which I preferred, whether it would not be safer to have the entrance straight in here instead of making that curve, is illustrated on that map. Perhaps I am digressing, however. I ought not to do that. Shall I go on?

**Senator HOPKINS.** Yes; go on.

**Mr. STEVENS.** A ship coming in with the wind astern would follow the direction of that ruler. [Pointing with ruler on map.] When she got here she would have to turn nearly at right angles, which would bring her, before she got to the protection of this point, with the wind abaft—with the wind crosswise, to use a landsman’s term—which of course would affect her steerageway in getting into the canal. Those considerations no doubt influenced the board in recommending in both the majority and the minority reports a straight entrance, in one case, as I understand, leaving the present line of the canal (this being the canal) about at this point, so as to make an easy curve here, and going straight through this point out to sea, something like that. [Indicating.]

**Senator KITTREDGE.** Which report are you now referring to, Mr. Stevens?

**Mr. STEVENS.** That is the recommendation of the majority report, cutting through this island here. The other report leaves at about the same point, but swings outside of the island, and then with a slight curve opposite goes to nearly the same entrance. The reason the minority report changes the line through here is to save what they call a large amount of rock excavation in the channel, which extends through this point here. By going outside they miss it completely. That is the reason, as I understand the reports, why they are not exactly on the same lines from here to here. [Indicating.] While in effect, to my mind, they are practically the same, there is a slight change in the alignment between the minority and the majority reports. Both reports have estimated breakwaters running from here outside of the line of the canal to prevent the cross winds from filling

in this deep channel through here. That is all the difference that I know of, as far as the line of the canal is concerned, at the southern terminus.

Senator MORGAN. Would that breakwater meet a "norther" squarely, or would it come in obliquely?

Mr. STEVENS. Endwise; practically endwise. A vessel entering the channel by the canal built according to either report would have a wind dead astern so as to have a straight shoot into the channel. As I understand the object of this breakwater, it is not for the protection of the ships—we do not think they need it—but for keeping this lateral drift of currents from closing up the channel.

Senator HOPKINS. How much excavation through that island does the minority report save?

Mr. STEVENS. That I could not tell you.

Senator HOPKINS. You do not know how many cubic feet or yards of excavation will be saved?

Mr. STEVENS. My impression is that it is in the vicinity of a million yards, although I would not undertake to say accurately. Indeed, I have not had access to their figures; I do not know.

Senator HOPKINS. And what is the character of the rock there? Are you sufficiently familiar with it to have an independent knowledge?

Mr. STEVENS. Why, it is a heavy coral rock, very hard as to blasting.

To go along with the sea-level project, I think they follow the same line right through, with a 40-foot channel of varying widths. I have a table there which gives the comparison of widths clear through to the south end.

Senator HOPKINS. Both reports follow the same route?

Mr. STEVENS. Yes, sir; yes, sir; until you reach the Pacific end.

Senator HOPKINS. Yes.

Mr. STEVENS. If you will allow me to look now at this end, this line here shows the location of the canal as proposed and as partially constructed by the French. You can see the small railroad yard at the little town of La Boca back here, and at this point there is a steel dock, which belongs to the railway company. Here is La Boca; here are the railroad yards, the swerve coming off of the main line of the railway. Here is Panama, and the little steel dock, as long as my finger, is shown very small on this plan. This high mountain here is what is known as Ancon, and this one is Sosa.

The majority report favors doing this: Leaving the present line near Miraflores (Miraflores is here), and coming straight through the marshes here, crossing from the high ground shown at this point, which is largely rock, and passing between Sosa and Ancon. at sea level throughout, making, I believe about here, a slight angle; then running out to the 40-foot contour in the harbor, or the 7-meter contour, at about this point, placing one lock here at Miraflores, where my finger is.

Senator GORMAN. That is the tide lock; that is the only lock?

Mr. STEVENS. That is the tide lock.

Senator GORMAN. How far inland is that from the present harbor?

Mr. STEVENS. That would be about 8½ miles from the ocean contour line, the 40-foot line; about 4 miles from La Boca. The minority report makes a change commencing at about the same point, and

comes through there, as indicated by pencil, like this: Leaving here, south of Miraflores, coming through and touching the side of Ancon Hill here at La Boca, then coming on and connecting with the present line of the canal out here in the harbor, and taking that line through.

Senator KITTREDGE. What plan contemplated the alignment indicated on the map?

Mr. STEVENS. There is no plan that is reported on that contemplates exactly that alignment. That is the old French plan. It was the old Commission plan; it was the De Lesseps plan; it was the plan of the second French company; and all the work that has been done on the west or south side has been done on this line.

Senator GORMAN. Where is the first lock, in the minority plan, on the Pacific side? How far is that?

Mr. STEVENS. The minority plan proposes to put a dam across the valley as I have indicated there, crossing the Rio Grande just here [indicating]; that is the Rio Grande; another one from Sosa marshes across to Ancon; and still another across from Ancon to the high ground here shown, which is right there [indicating]. That dam, I understand, is to raise the water to an elevation of 55 feet, and the proposed plan places two locks where I have indicated here.

Senator GORMAN. At Ancon Hill?

Mr. STEVENS. At Sosa Hill, that being a rock foundation, and another lock at or near Miraflores. The effect is that with these dams and these locks here there will be a certain area, estimated at about 8 square miles, going around here inside of these dams, which will become a lake with an elevation of 55 feet, and then from Miraflores on.

Senator GORMAN. How much lake navigation would that give between those series of locks—the locks at the dam and the others?

Mr. STEVENS. About 4 miles.

Senator KITTREDGE. The lock at Miraflores is 30 feet high?

Mr. STEVENS. The lock at Miraflores, I understand, is about 30 feet high; yes, sir.

Senator MORGAN. This is all stated in the minority report.

Senator GORMAN. Yes; I wanted to get it, though, for my own information. About what would be the elevation of Sosa above the level of the lake, which has an elevation of 55 feet?

Mr. STEVENS. The top of Sosa Mountain?

Senator GORMAN. Yes.

Mr. STEVENS. Sosa must be 350 feet above the ocean, so that it would be in the neighborhood of 300 feet above the lake.

Senator GORMAN. Is Ancon as high as that?

Mr. STEVENS. Very much higher. Ancon, as I recollect, is about 600 feet high.

Senator KITTREDGE. What is the length of the three dams that you have mentioned?

Mr. STEVENS. In the aggregate?

Senator KITTREDGE. The one at La Boca, the one across to Ancon, and the one from Ancon over to this other place on the Panama Railway.

Mr. STEVENS. I would have to trust to my memory for that.

Senator KITTREDGE. About what is it?

Mr. STEVENS. I should say this dam here would be about three-quarters of a mile long; that one would be something less than a half

a mile, and the one across here would probably be about a mile or a mile and a quarter—possibly longer.

Senator MORGAN. What is the width of the depression between Sosa and the other mountain?

Mr. STEVENS. Not much over a quarter of a mile.

Senator MORGAN. About what is the elevation of the canal above the level of the sea?

Mr. STEVENS. I should say about 8 or 10 feet.

Senator MORGAN. Only eight or ten?

Mr. STEVENS. Yes, sir.

Senator SIMMONS. You mean the space between Ancon and Sosa?

Mr. STEVENS. The distance from here to here [indicating on map].

Senator KITTREDGE. I did not hear the character of the dams that the minority report recommends.

Mr. STEVENS. Earthen dams throughout.

Senator MORGAN. That canal will go through a valley between the two mountains?

Senator SIMMONS. Ten feet above the sea level?

Mr. STEVENS. Ten feet is probably an exaggeration, Senator; I would say 6 or 8 feet.

Senator MORGAN. Above mean sea level?

Mr. STEVENS. Yes, sir.

Senator MORGAN. Let me ask you just one question there. At high tide does the tide run in between those hills?

Mr. STEVENS. No, sir.

Senator MORGAN. It does not?

Mr. STEVENS. But it does, at extreme high tide, go over these flats.

Senator KITTREDGE. Through the valley of the Rio Grande?

Mr. STEVENS. Through the valley of the Rio Grande; yes, sir.

Senator GORMAN. How much of the old French work is abandoned by the minority plans? They did a great deal of work at that end, did they not?

Mr. STEVENS. Well, yes, sir; the minority plan abandons about four miles.

Senator SIMMONS. The majority plan abandons about 8 miles?

Mr. STEVENS. About 8 or 8½. Now, at the other end, the proposition of the minority is to build a dam across from high ground to high ground here [indicating], something after this shape, through here [indicating].

Senator KITTREDGE. That is in the neighborhood of Gatun?

Mr. STEVENS. Yes, sir; and through here. As I remember, the dam is about—well, say, in round numbers, 7,000 feet—a mile and a quarter, possibly a mile and a half, from end to end, and 135 feet high.

Senator KITTREDGE. Of what material is that dam to be constructed?

Mr. STEVENS. Of earth. The elevation of water proposed is 85 feet, which would leave the crest of the dam 50 feet above the top of the water.

Senator KITTREDGE. Is that the only dam on the northern side of the canal?

Mr. STEVENS. Yes, sir.

Senator KITTREDGE. They abandon the dam at Bohio?

Mr. STEVENS. Yes, sir; yes, sir. Instead of making two dams, I believe, as has been suggested, they make it all in one.

Senator MORGAN. That dam would raise the level of 85 feet to Miraflores?

Mr. STEVENS. To Miraflores; yes, sir.

Senator MORGAN. Clear across the whole lake?

Mr. STEVENS. Yes, sir.

Senator GORMAN. Clear across the ridge?

Mr. STEVENS. Yes, sir.

Senator GORMAN. Mr. Stevens, what sort of a foundation have they for this proposed dam?

Mr. STEVENS. They have clay—a mixture of clay. Generally speaking, it is clay down to different depths from 20 to 200 feet. Then they strike what they call indurated clay, of which we spoke the other day, which is to all intents and purposes rock. My opinion—I presume you will ask it—is that this clay is impervious.

Senator KITTREDGE. The clay is impervious?

Mr. STEVENS. I think it is; about.

Senator GORMAN. Does the difference between the majority and the minority relate to the safety of that foundation—the very serious difference of opinion there?

Mr. STEVENS. The majority report, as I remember it, does not favor building a high earth dam on that foundation. The minority report does. I think there is a clear division of opinion, although, of course—

Senator SIMMONS. How high did you say that dam was?

Mr. STEVENS. 135 feet high.

Senator GORMAN. But to go down to the foundation?

Mr. STEVENS. It is 200 feet, at some points, to solid rock.

Senator KITTREDGE. How deep does the minority recommend that the foundation shall be laid?

Mr. STEVENS. The minority recommends simply taking off the detritus at the top and building the dam directly on this impervious clay.

Senator KITTREDGE. And how deep is that below the surface?

Mr. STEVENS. Oh, I suppose, probably from 10 to 12 or 15 feet.

Senator GORMAN. Not more than that?

Mr. STEVENS. Not more than that; they recommend simply taking off the accumulated vegetation, Senator, you might say.

Senator MORGAN. Mr. Stevens, as I understand it, a vital point in this canal in which the majority and the minority concur is as to building a dam at Gamboa to create a great lake to lie back of it?

Mr. STEVENS. Yes.

Senator MORGAN. That would create a great lake to lie back of Gamboa, without any regulation plan connected with that dam, so far as I know, to control the flow of water into the canal?

Mr. STEVENS. I do not understand it quite that way. A reference to their report will show that. My understanding is that the majority report proposes to build a dam across at Gamboa about where my thumb is; this being the line of the canal [indicating].

Senator KITTREDGE. That is where the Chagres River enters the canal?

Mr. STEVENS. Where it first strikes the valley which the canal follows.



Senator MORGAN. That is for purposes of protection?

Mr. STEVENS. That is to hold the flood waters of the Chagres back until they can be drawn off by means of regulating works built in the dam.

Senator MORGAN. In the dam?

Mr. STEVENS. Yes.

Senator MORGAN. Very well; then I was mistaken about that. Now, therefore, the point is that the sea-level men want to protect the canal against the Chagres River by regulation works put in the dam?

Mr. STEVENS. Yes, sir.

Senator MORGAN. And to hold the water back against floods, consecutive floods, etc., for that purpose—for protection?

Mr. STEVENS. Yes, sir.

Senator MORGAN. The minority plan contemplates a lake from Gatun to Miraflores?

Mr. STEVENS. Yes, sir; from this point; from Miraflores, over here.

Senator MORGAN. What do they propose to do with the flood waters behind that dam?

Mr. STEVENS. They do not propose to build any dam.

Senator MORGAN. No dam at all?

Mr. STEVENS. No, sir.

Senator MORGAN. Now I have got it straight in my mind, then.

Mr. STEVENS. The elevation of the ground or the bed of the river at Gamboa, at the site of the proposed dam, is within a foot or two of 50 feet. If you flood this country here to an elevation of 85 feet, it follows that you have 35 feet of water, with a lake, at the Gamboa dam site. That water, which is dead water, will flow north about as far as Alhajuela.

Senator GORMAN. What distance is that?

Mr. STEVENS. By the river it is 10 or 11 miles; the valley line, of course, is the line you have to figure on in the dead water. It is the expectation that the flood waters would have no effect whatever on the canal, having, we will say, 7 or 8 miles of dead water between the canal and the limit of the dead water.

Senator GORMAN. What provision, then, is made for the dry season, when the flow is not sufficient?

Mr. STEVENS. For the canal?

Senator GORMAN. Yes.

Mr. STEVENS. There is enough surface in the lake to allow for fluctuations. For instance, this lake covers, as nearly as I can recollect, 115 or 118 square miles. The board have made very elaborate calculations (based, no doubt, on accurate scientific knowledge) to the effect that the evaporation will be about so much; and, figuring on the number of locks, they estimate that they will use about so much water for putting ships through the locks; so that with an allowance for possible seepage and power at the locks, they estimate that they will have plenty of water to carry them over the dry season, with the addition of that part which comes in. Of course there is always a flow coming in. There are some very large streams, besides the Chagres, above Gatun, which will necessarily come into the lake. They have made very elaborate calculations there, which may or may not be correct.

Senator MORGAN. Do the minority propose to put in a dam at Alhajuela?

Mr. STEVENS. Not at present; no, sir.

Senator MORGAN. Nor at Gamboa?

Mr. STEVENS. Nor at Gamboa. They propose to put in no dams whatever for storage purposes.

Senator MORGAN. That is the only dam they put in until they get away over here [indicating]?

Mr. STEVENS. Yes, sir.

Senator MORGAN. I would like to ask your opinion, Mr. Stevens, as to whether water standing 35 feet deep in this lake (which runs clear through, as we understand) will resist the flow of the Chagres River to such an extent as to prevent the lock canal from being torn up by the power of the Chagres River? Here comes the Chagres River down from the mountains with a tremendous flood—a 40-foot flood, we will say; that has occurred. That 40-foot flood pouring in upon a 35-foot elevation in the lake will of course sweep it out?

Mr. STEVENS. With 7 or 8 miles of dead water, my opinion is that it would lose its force before it got to the canal. That is my opinion.

Senator MORGAN. If it was 40 feet high?

Mr. STEVENS. It never comes in one wave 40 feet high, Senator. That is distributed over a number of hours.

Senator MORGAN. Yes; over a number of hours—about twelve.

Mr. STEVENS. It is not like a dam going; it is not like the Johnstown flood, for instance. Nothing of that kind ever has happened.

Senator MORGAN. I was about to suggest this: Do you think it would be advisable to make an estuary at Gamboa for the purpose of containing any possible flood of that sort that might come down, say to the eastward of Gamboa?

Mr. STEVENS. My opinion is that it would be unnecessary. Of course it would be an additional insurance.

Senator MORGAN. Yes.

Mr. STEVENS. But you must understand that the canal is quite wide at this point. My recollection is that at Gamboa you will have a basin there probably a mile one way and half a mile the other before you get into the course of ships in around here [indicating].

Senator MORGAN. Yes.

Mr. STEVENS. It is not a narrow valley, you understand, by any means.

Senator GORMAN. There is back water in the river, dead water in the river, for 2 miles?

Mr. STEVENS. Oh, for 7 or 8 miles—8 or 9 miles; I do not remember just what the distance is to Alhajuela.

Senator MORGAN. Then this whole question can be finally solved by the engineers and constructors by enlarging the size of that basin in the event that it is found necessary to do so?

Mr. STEVENS. It could be done, but I do not believe that contingency would arise. That is my private opinion.

Senator MORGAN. That is your opinion; that is what we want.

Senator GORMAN. That would practically give you lake navigation three-fourths of the way, then?

Mr. STEVENS. Yes, sir. There is a table here showing those things.

Senator SIMMONS. What is the distance from the point over here

where the dam is to be, at Gatun, as you say, to the other dam? I mean the other dam over here.

Mr. STEVENS. This one [indicating]?

Senator SIMMONS. Yes; the lock dam there.

Mr. STEVENS. From here to here?

Senator SIMMONS. To Gamboa, over here.

Mr. STEVENS. To Gatun?

Senator SIMMONS. To Gatun; yes.

Mr. STEVENS. My recollection is that it is something like 36 miles.

Senator MORGAN. Those distances are given accurately in the report.

Mr. STEVENS. Yes.

Senator MORGAN. Now, on the plan of the minority, all of the affluents of the Chagres River, as well as the Obispo and the Trinidad, are taken care of as to any flood waters by the spillway that is to be erected at Gatun—the Gatun dam?

Mr. STEVENS. That is the minority plan; yes, sir.

Senator MORGAN. They take no care of any streams with regard to backing them over their fountain sources or anything of that sort?

Mr. STEVENS. No, sir.

Senator MORGAN. They let the water run right along, form lakes, and go as high as it will, with the regulation at the Gatun dam?

Mr. STEVENS. Yes, sir. The largest streams generally come in miles from the canal, you know.

Senator MORGAN. I know that.

Senator SIMMONS. Mr. Stevens, you say that would give 35 feet of elevation clear across from this dam to that dam over there?

Mr. STEVENS. That would give something like 75 or 80 feet here until you got up here nearly to Gamboa, in this vicinity, somewhere.

Senator SIMMONS. It would give you 35 feet at the highest point?

Mr. STEVENS. For navigation?

Senator SIMMONS. Yes.

Mr. STEVENS. It would give you 40 feet everywhere.

Senator SIMMONS. Forty feet everywhere?

Mr. STEVENS. Forty feet everywhere.

Senator SIMMONS. Without any excavation?

Mr. STEVENS. Oh, no; oh, no. There would have to be some little excavation, starting in this vicinity; and then, of course, there is the Culebra cut through here.

Senator SIMMONS. That is what I was getting at.

Senator MORGAN. You would have excavation also between Gamboa and Bohio—trimming off?

Mr. STEVENS. Oh, yes; we would have some trimming there.

Senator SIMMONS. If you got 40 feet, how much excavation would there be at these two high points?

Senator HOPKINS. The Culebra cut, for instance?

Mr. STEVENS. The Culebra cut?

Senator HOPKINS. Yes.

Mr. STEVENS. You would have to go to an elevation at the bottom of the canal of plus 45, which would be about, as I recollect it, 160 feet at the deepest point. Here is a profile which was made by the Commission.

Senator KITTREDGE. Which Commission?

Mr. STEVENS. The old Commission; but it happens to illustrate to a certain extent this proposition, with the exception that the dam at

Bohio is indicated on this map. By the present proposition you come down here to Gatun. In other words, this line would be extended through here [indicating]; and this part of the canal, plus 47, is within 2 feet of the proposition of the minority engineers. In other words, everything in red above this line would be taken away.

Senator GORMAN. That is the big cut?

Mr. STEVENS. That is the big cut.

Senator SIMMONS. That is the Culebra cut?

Mr. STEVENS. Yes, sir; and under the minority report the so-called lake navigation will extend from where my pencil is practically through to Bas Obispo, which is here [indicating]; then through cuts of different widths to Miraflores, which is here; then there would be lake navigation from there to what is called Panama La Boca, right here.

Senator SIMMONS. Then this lake plan would reduce that cut how much?

Mr. STEVENS. It would reduce the cut itself from about one—the figures are there exactly.

Senator SIMMONS. 160 feet, you said just now.

Mr. STEVENS. I think it is something like 50,000,000 yards in this, and in the cut proper I think it is 117,000,000.

Senator GORMAN. What are you comparing it with now, the sea-level project?

Mr. STEVENS. The sea-level project; yes, sir.

Senator HOPKINS. Do you mean cubic yards?

Mr. STEVENS. Yes, sir; I may be wrong in these figures; they are given exactly in the report.

Senator HOPKINS. Yes.

Mr. STEVENS. With the sea-level plan and the Culebra cut—assuming that the cut commences here and ends here—it will go down to about this line here to get 40 feet of water; down to this line here, right there.

Senator SIMMONS. What is the difference between the cut of the sea-level and this lake plan?

Mr. STEVENS. In yards?

Senator SIMMONS. In depth.

Mr. STEVENS. In one case the bottom of your canal is 45 feet above mean sea level, and in the other case it is 40 feet below; there is a difference of about 95 feet.

Senator MORGAN. Mr. Stevens, I want to ask you a question if you please, sir. The sea-level plan contemplates or includes a high dam at Gamboa?

Mr. STEVENS. Yes, sir.

Senator MORGAN. With regulation works in it to draw down any flood waters that might be in the lake above?

Mr. STEVENS. Yes, sir.

Senator MORGAN. Are those flood waters on either plan carried into the canal or through the canal?

Mr. STEVENS. Yes, sir.

Senator MORGAN. Or above it?

Mr. STEVENS. No, sir; I understand they are brought into the canal gradually.

Senator MORGAN. So that all water drawn off in the way of regulation from the lake above would have to pass into the canal?

Mr. STEVENS. Yes, sir.

Senator MORGAN. Would that not be a somewhat risky proceeding in regard to preserving the integrity of the canal itself?

Mr. STEVENS. Of course all of those regulating works must be built of heavy masonry. There is no danger of washing or scouring, no possibility of it; and I should imagine that the water would have to be discharged by separate months, so that at no one point would there be enough water brought in with enough velocity to make currents in the canal sufficient to affect the navigation of ships.

Senator KITTREDGE. What sort of a foundation is there to be for the dam at Gamboa, according to the report of the majority?

Mr. STEVENS. There is rock about 50 feet below the surface of the ground.

Senator KITTREDGE. Is there any difficulty about securing that sort of a foundation?

Mr. STEVENS. Oh, no; oh, no. You understand, Senator, that there are different propositions which the report does not touch on; there have been other ways suggested of taking care of this flood water. The Senator spoke the other day about the work the engineers have been doing. They had projects for digging long tunnels through the mountains back here to conduct the water over to the Caribbean Sea. One survey, I think, was made before my time to take it to the Pacific.

Senator HOPKINS. Restate that, please; I did not catch it.

Mr. STEVENS. I say that other projects, which neither committee reports favorably on, contemplated building this very high dam at Gamboa and flooding this water back; and then, instead of letting the water come out into the canal here, the plan was to put long tunnels through the mountains to carry this water off to the Caribbean Sea and to the Pacific Ocean.

Senator HOPKINS. Yes.

Mr. STEVENS. And in one case, for which I made a partial survey last summer, what is called the Dique cut ("Dique" is the name of the river), the plan was to reverse the flow of the river by digging a tunnel through the mountains and bringing it down into the Caribbean Sea—involving, as I recollect, about a 20-mile cut, some twelve or fifteen million yards.

Senator GORMAN. That was Wallace's project, was it not?

Mr. STEVENS. I do not know who originated that. I have never completed that survey.

Senator KITTREDGE. The French suggested it; the original plan was worked upon by Mr. Wallace and his engineers in connection with a whole lot of other plans.

Mr. STEVENS. But it would seem that the majority of the consulting board did not favor it. They favored having the regulating works directly at the dam.

Senator HOPKINS. And the minority plan provides against that by creating the lake there, and throwing the dead water back here to stop the force of the river?

Mr. STEVENS. Yes, sir; and of course that would apply to all influent streams.

Senator SIMMONS. What would be the effect of creating that immense lake there upon the health of people on the Isthmus?

Mr. STEVENS. From my point of view, I do not think it would affect it, Senator.

Senator SIMMONS. Either beneficially or injuriously?

Mr. STEVENS. I do not think so. I will tell you why. Of course being from the North, as we all are here, and looking at the Isthmus as it exists, I can not see for the life of me where there are ever going to be any centers of population in the interior of the Isthmus of Panama—not of white people. There are certainly no white people going there to farm. In other words, the population in the interior after the canal is built is going to be as it is now, possibly for years to come. Of course "forever" is a long time; but as far as the human mind can predict, the population there is going to consist of natives, who are practically immune. Now, I can not see what great prejudice a fresh-water lake there is going to be. I will admit that if you create fresh-water lakes near the centers of population, particularly white population, there is a question of that kind.

Senator KITTREDGE. A serious one?

Mr. STEVENS. It is generally admitted by all scientists, by our own surgeons, and our own physicians—and I expressed my opinion of their abilities very freely the other day; I think they are first class—that yellow fever and malaria are carried by mosquitoes. Mosquitoes breed in fresh water. Therefore, if you create an artificial lake near the big centers of white population there is that danger of breeding mosquitoes. On the other hand, I understand—if my understanding is right—that these mosquitoes are not bred in deep bodies of fresh water. They breed in marshes, shallow places. I have known them to breed in a wet sponge in my bath room.

Senator SIMMONS. Do they not require some protection of some sort—grasses, or something like that?

Mr. STEVENS. As a rule; yes, sir—dark, moist spots.

Senator KITTREDGE. What would be the effect of these lakes up the Chagres River and along the route of the canal, in regard to the creation of marshes?

Mr. STEVENS. I do not think it would have any effect along the immediate route of the canal, the track of sailing vessels, because they do not breed there.

Senator KITTREDGE. Do they breed at the outskirts of these lakes?

Mr. STEVENS. I think undoubtedly they would. Now, the men who worked for the Missouri River Commission told me that along south from Memphis, and north on the Arkansas River, mosquitoes may be the plague of their lives when they are tied up to the banks, where the water is shallow; but once that they pull their dredges or their boats out into the middle of the river they get no more mosquitoes.

And I think it is pretty well ascertained that the radius of a mosquito's flight is very limited. Unless there is a very heavy wind that carries him away, I do not think that a mosquito ever gets. I should say, 100 yards or 200 yards from the place of his birth. I know that scientific men are making experiments along those lines, and as far as I have been able to read up to this time that is their conclusion.

Senator DRYDEN. You think, then, there would be no danger to people passing along the canal?

Mr. STEVENS. Oh, I do not think there would be the slightest. I do not think that at all.

Senator KITTREDGE. What is the character of the foundation of the dam recommended at Miraflores under the lock plan?

Mr. STEVENS. That is rock, very near the surface. In fact, the railway will have to be moved there for any kind of a canal that is built. There is rock in the vicinity of the locks, within two or three hundred feet. There is a rock cutting right there; the rock is at the surface, or very close to it.

Senator KITTREDGE. And at that point the majority report recommends the construction of a tidal lock?

Mr. STEVENS. Yes, sir.

Senator KITTREDGE. And the minority report recommends the construction of a lock for the canal, elevating it 30 feet?

Mr. STEVENS. About 30 feet, as I recollect. In other words, they divide the 85 feet between two locks at Sosa and one at Miraflores.

Senator KITTREDGE. What sort of foundation can be secured for the dams in the vicinity of La Boca and Ancon, and from that point over to the railroad?

Mr. STEVENS. The deepest boring we got there along the site of the proposed dam (and we made a lot of them) was 65 feet to solid rock, and covering that rock is clay. There is no question whatever about the character of the foundation—that is, as to imperviousness.

Senator MORGAN. Now, I would like to have Mr. Stevens take up the sea-level plan—the majority report.

Senator GORMAN. One moment, Senator, before you go to that. Mr. Stevens, tell me what provision is made for the disposal of the silt and the debris that washes down into the canal from the Chagres River where it enters the canal?

Mr. STEVENS. The Chagres River at and above Gamboa carries very little silt. It is a mountain stream, and even in floods—we had quite a flood, or two of them, before I left there—the water as it came down to the railway through Gamboa was clear. Below Gamboa, where we get into the alluvial valley, it gets muddy.

Senator GORMAN. Yes; so that you do not apprehend that it will require constant dredging in the prism of the canal at that point?

Mr. STEVENS. I should say no; I should say no.

Senator GORMAN. In that plan what arrangement have they for spillways for the prism of the canal in case there is too great a volume of water in that lake? Is the location such that you can relieve the canal by the ordinary spillway?

Mr. STEVENS. Yes, sir; you can, in the Gatun dam.

Senator GORMAN. Clear through in the lake level?

Mr. STEVENS. It is intended to regulate that entirely by sluiceways in the Gatun dam.

Senator GORMAN. Not along on the line of the canal?

Mr. STEVENS. No, sir.

Senator GORMAN. Well, that is an entirely different plan from any other canal.

Senator MORGAN. Now, I think, Mr. Chairman, that we had better permit Mr. Stevens to take up the majority report and follow the heads into which it is distributed, and examine the report all the way through, making such criticisms as he has to make upon it, and then

afterwards have him take the minority report and give his criticisms upon that.

Senator KITTREDGE. May I ask one question before that point is reached, Senator Morgan. I think the suggestion is a first-rate one.

Senator MORGAN. Yes, sir.

Senator KITTREDGE. Does the minority of the Board of Consulting Engineers treat upon the question of changing this canal from locks to sea level at a later day? I have not yet had an opportunity to read it.

Mr. STEVENS. The Board as a whole, as I read it, without any division, are strongly of the opinion that that is not practicable; that if a sea-level canal is ever to be contemplated, the time to build it is at the start.

Senator GORMAN. You mean by that that it is too expensive, do you not, Mr. Stevens?

Senator MORGAN. Yes; they concur in that.

Mr. STEVENS. I have here an excerpt or transcript that I made of some of their proceedings some time ago, which I believe is embodied in the reports—a report in which they all agree.

Senator KITTREDGE. Is that embodied in the minority report and in the majority report as well?

Mr. STEVENS. I think it is; yes, sir.

Senator MORGAN. Both the majority and the minority signed it.

Mr. STEVENS. It shows, according to their figures, that it will cost \$246,270,000.

Senator KITTREDGE. To make the change?

Mr. STEVENS. To make the change; yes, sir.

Senator KITTREDGE. As I recollect the reading of the majority report, the 85-foot elevation was not treated of. Is that right? Their figures were upon the basis of a 60-foot elevation, as I recollect.

Mr. STEVENS. This extract which I have here—it has been some time since I have seen it—says that an estimate of the quantities and costs for transforming a lock canal with a summit elevation of 85 feet to a sea-level canal amount to \$246,000,000. They have not detailed it. It is possible that in the report there is a comparison of the cost of transforming a lower lock canal. I do not remember whether there is or not. You have the majority report there.

Senator MORGAN. Now if we can take up a methodical examination of these reports, when we come across one of these questions we will have the figures right before us.

The CHAIRMAN. Senator, as we have started in with the minority report, perhaps we had better finish that and then take up the other. We have started in with Mr. Stevens, on the minority report; so perhaps he had better go along with that and finish it.

Mr. STEVENS. There was one question, if you will allow me—I assume you want all the light there is—

Senator HOPKINS. Yes.

Senator MORGAN. We do.

Mr. STEVENS. I do, myself. I am seeking for light, and any opinion I have so far is only made up from impressions and the data that has gotten in my brain so far. You spoke about taking care of the flood waters by means of the regulating works at the Gatun dam. That is the plan of the minority; but I am not clear as to whether or



not that is the place, in case a dam of that size is built, where the regulation could be effected, up here on the Trinidad River, which comes in here from the west. Here is the canal.

Senator GORMAN. How far is that from the dam—about what distance?

Mr. STEVENS. The Trinidad River comes in about four miles above the dam. Now, going up that stream, which has very little rise—I have been up there several times with a small launch—going up there about five or six miles farther there is a depression in the hills between there and the Caribbean Sea. I sent some men up there to take the elevation and make an examination of the country, and it was made very lately, but I know this: That the top of that pass is only 27 feet above the top of the dam here. That is through natural ground; and, I think, although I have not drilled it, that it is rock. Now, my own opinion is, that before I will permit myself to put in these spill works here, I should examine that very closely; and if it is as I expect to find it, I would plan to put my regulating works at the head of that stream. That would be a similar proposition to the old Gigante spillway of the old Commission.

Senator MORGAN. Yes—the same thing. Now, if you were building a dam at Gatun, could you dam the Chagres at Trinidad—is that the name of the river?

Mr. STEVENS. You would not need any dams on the Trinidad at all. This water would back, you know, to within 27 feet of the top of this pass. You would merely make your cut right through there, and put your regulating works there, and keep them away from the dam.

Senator MORGAN. I am speaking about a diversion of the Chagres for the purpose of building a dam at Gatun.

Mr. STEVENS. Yes, sir.

Senator MORGAN. Could that diversion be made through Trinidad?

Mr. STEVENS. Yes, sir.

Senator MORGAN. And that is 4 miles above the dam at Gatun?

Mr. STEVENS. By the river line it would be probably 8 miles. It is some distance up to Trinidad.

Senator MORGAN. Yes, sir. In any event such a diversion at Trinidad would be a relief to the work of the Gatun dam, even if it did not entirely complete the diversion?

Mr. STEVENS. It would be simply a transference of the regulating works needed for controlling the level of the big lake. Instead of putting it through the dam, you put it through the natural ground.

Senator MORGAN. I never heard of that before, but it looks very nice.

Mr. STEVENS. Yes. In making some reconnoissance through there, I think in defining the Zone line, I found there was a pass through there, and I had it examined with that in view.

Senator GORMAN. What about the other end, as to the Chagres River? You bring the water into the canal about the center of it. What about the spillway at the other end?

Mr. STEVENS. They do not propose to make any spillway there at all. The water all comes through from the north.

Senator SIMMONS. Mr. Stevens, I understood you to say that that lake would flood about 118 square miles of territory. That would involve, of course, flooding a large amount of territory outside of the Canal Zone?

Mr. STEVENS. Yes, sir.

Senator SIMMONS. You do not know how much?

Mr. STEVENS. The minority report makes an estimate of that.

Senator SIMMONS. All of that would have to be paid for by the Government?

Mr. STEVENS. Yes, sir; as I say, the minority report contains an estimate of that.

Senator SIMMONS. I have not seen the report at all.

Mr. STEVENS. Yes, sir; and what I am about to state is altogether a coincidence, because, you understand, I knew nothing about either of these reports. In a general way I knew that the newspapers said that there was a division in the board; but in my spare time from my other duties I gave considerable time and interest to this matter, and that idea was one of the first that occurred to me—whether the plan of a big dam at Gatun would not flood so much valuable territory, millions and millions of dollars' worth of property, as to be out of the question.

But taking the Zone map, and taking the United States ownership, and including the Panama Railroad ownership, I figured that putting the value of the land as high as I possibly could, stretching my conscience to that extent—mind you, if I were buying there I would not pay any such prices—it would be necessary to acquire not to exceed \$300,000 worth of privately owned tracts; and I find that the minority report have the same figures, although how they arrived at them I do not know.

Senator MORGAN. I would like to remark that the treaty, as I understand it, settles all these questions by fixing the value of all property that is condemned at its value before the improvements were commenced.

Senator HOPKINS. Yes; the treaty protects us in that respect.

Senator MORGAN. Yes. That, of course, is a mere bagatelle; and I would like to make this statement: That if there is any way in the world to flood out, decently, those little villages along on the Chagres River, I would like very much to do it. I do not want any people in there except the ones that are working on this canal.

Senator HOPKINS. Well, Senator Simmons, as I understand what the treaty provides, it is this: Taking the amount of territory outside of the Zone that will be flooded, in determining the value of that territory between our Government and the Panama Government, the value of that land before this canal is touched is the value that will be fixed upon.

Senator SIMMONS. That part of it which is covered with water will have no value, Senator.

Senator HOPKINS. No; but we take it, and we pay for it—

Senator SIMMONS. You buy it absolutely.

Senator HOPKINS (continuing). We pay for it on a valuation prior to any improvements at all.

Senator SIMMONS. Then you have to consider the question of what is the effect of that flooding upon the abutting land.

Senator HOPKINS. Oh, yes.

Senator SIMMONS. That will be another question.

Senator MORGAN. I venture to suggest that before this committee get very far into this subject they will be very glad of any opportunity to remove the people from those villages along the Chagres River.

The CHAIRMAN. Senator, I think the lake itself will remove the people. Is not that correct, Mr. Stevens?

Mr. STEVENS. Undoubtedly.

The CHAIRMAN. They will all have to go away. They have no rights there, as I understand it.

Senator HOPKINS. However, as Mr. Stevens has said, we have the estimate both of himself and of the minority that it will be about \$300,000, which is a mere bagatelle when you consider the other expenditures.

The CHAIRMAN. If you saw the conditions down there you would think Mr. Stevens's estimate was large enough.

Mr. STEVENS. The greater part of the land is a marsh. People have been there that we know of—our records go back there four hundred years; and I do not believe that to-day there is on the Canal Zone, outside of the little towns and the railroad right of way, the equivalent of two square miles of cleared land.

Senator SIMMONS. Mr. Stevens, I want to ask you this question: Beyond the flood line of this lake is there any settlement? Would there be any settlements out there?

Mr. STEVENS. There are none now, unless you go up the streams. I imagine there are some there. I never have been away up very many of them.

Senator GORMAN. Mr. Stevens, I see that the minority report, on page 29, states that the 118 square miles of lake surface, on their lock plan, will require the acquisition of 20,480 acres of private ownership, and that the average cost of the land will be \$7.70 an acre.

Mr. STEVENS. Yes.

Senator GORMAN. That is rather insignificant. You would be compelled, according to this statement, to purchase land in either case—with either a lock or a sea-level canal.

Mr. STEVENS. At the bottom of that page you will notice, Senator, that they say:

An approximate estimate may, therefore, be based on the price per acre paid by the Canal Company for the whole area it acquired, and such an estimate would be 38,400 acres at \$7.70 per acre, making the total cost \$295,680, or, in round numbers, \$300,000. While the actual cost is likely to exceed this somewhat, no better data for an estimate exists. It would be neither good judgment of values nor to the interests of the United States to submit an extravagant figure.

Of course an estimate of that kind must necessarily be very approximate.

Senator GORMAN. Yes.

Senator MORGAN. Now will the committee take up first the majority or the minority report?

The CHAIRMAN. As Mr. Stevens has been talking about the minority report, would it not be better to finish that?

Senator MORGAN. Had we not better ask Mr. Stevens to take it consecutively, commencing out in the Bay of Limon and going right along, and let him state any difficulties there are of an engineering sort or any possibilities that in his opinion may prevent the canal being built on the plan suggested in the minority report?

The CHAIRMAN. Yes, sir.

Senator MORGAN. Now, Mr. Stevens, please take up that minority report and go through it by heads in your own way.

Mr. STEVENS. The minority report contemplates starting at the 45-foot line (it is  $7\frac{1}{2}$  fathoms; I think that is 42 or 45 feet) in the outer harbor, about where my ruler lies, and excavating a channel 500 feet in width.

Senator MORGAN. Is that wide enough?

Mr. STEVENS. With a straight entrance like that, I should say yes—with no cross winds.

Senator MORGAN. Go ahead.

Mr. STEVENS. Then following this line [indicating], passing this point, striking the old canal here, and following this canal through to Gatun and to this point [indicating].

Senator KITTREDGE. You say "striking the canal here?"

Mr. STEVENS. I mean the present canal.

Senator KITTREDGE. You mean at the mouth of the Mindi River?

Mr. STEVENS. Above the mouth of the Mindi River; about here, as I recollect it; about here they swing off.

Senator KITTREDGE. How far is that from the mouth of the Mindi?

Mr. STEVENS. The mouth of the Mindi is right there; it is, say, half a mile at the nearest point of the curve 500 feet in width from this point here to Gatun. As I recollect now, there is some doubt in their minds whether it will be necessary, but for the purpose of comparison with a sea-level canal they put in \$5,000,000 for breakwaters on each side of this channel—parallel with it—these breakwaters to be built in case the experience in the next four or five or six years shows them to be necessary. Of course they could be built at any time. It is a question whether a channel excavated along the line that their report contemplates could be kept open without constantly dredging at high expense—that is, keeping dredges at work there all the time—but the opinion of the entire board is that with this jetty or breakwater it could be done.

Senator SIMMONS. That would be excavation through solids from where you leave the Bay of Limon, would it not?

Mr. STEVENS. From this point [indicating]?

Senator SIMMONS. Yes.

Mr. STEVENS. Oh, yes; the excavation is through swamps until you get up—away up to San Pablo.

Senator SIMMONS. I am talking about the 500-foot-wide excavation. I say that would be through solids, would it not, from the Bay of Limon to that point which you mentioned there?

Mr. STEVENS. Here [indicating]?

Senator SIMMONS. Yes.

Mr. STEVENS. Why, it would be earth, clay, sand, etc.; the alluvial matter that has been brought down by the river here for ages. Now, at Gatun—

Senator MORGAN. Before you get there, if you please, I want to ask you just one question. A ship entering the canal would keep that breakwater on its starboard side?

Mr. STEVENS. Yes, sir.

Senator MORGAN. The whole length, coming into the coast?

Mr. STEVENS. Yes, sir.

Senator MORGAN. Going out, of course, it would be on the larboard side?

Mr. STEVENS. On the port side—yes, sir. Therefore they will have a 500-foot channel up to Gatun. At this point is the location of the

proposed high dam. This dam is to be 135 feet high, or 50 feet above the level of the water in the proposed lake. That 50 feet, as I understand, is simply to give more weight and solidity to the dam. It is a grave question in my mind whether all of that is needed or not. However, that is merely an opinion. This dam is to be, on the base, about 2,700 feet in width, about one-half mile up and down the stream.

Senator MORGAN. That is, a cross section of the dam?

Mr. STEVENS. Yes, sir.

Senator MORGAN. At the level of the water?

Mr. STEVENS. No; at the bottom.

Senator MORGAN. I mean at the bottom.

Mr. STEVENS. At the level of the water my recollection is that it is 374 feet. You see, I have no plans yet; I only have their general description in my head.

Senator ANKENY. What is the foundation of the dam?

Mr. STEVENS. Clay—an impervious clay.

Senator ANKENY. That is sufficient, is it?

Mr. STEVENS. Yes, sir; in my opinion it is. That dam contains, as I recollect, about 2,100,000,000 yards of material; and it is proposed to build it out of earth.

Senator KITTREDGE. Is the foundation to be of earth? You are to go below the surface of the water, of course, for your foundation?

Mr. STEVENS. We will simply take off the detritus, the vegetable accumulation, and go down to where it is absolutely firm—just as if you were going to build a wall down here in the woods; you would dig off the muck and the loose stuff until you got down to absolutely firm soil.

Senator KITTREDGE. And then you would pile in the dirt?

Mr. STEVENS. Then we would commence to put in the dirt; yes, sir.

Senator KITTREDGE. And that is all there is to be done in reference to the foundation?

Mr. STEVENS. That is all there is to be done in reference to the foundation. This dam, as I say, will be half a mile thick at the base, and 375 feet thick at the water-level. The construction that is proposed for that is not to pile that dirt in there largely from railroad trains, but to take it from the mass that is excavated here by dredges, bring it up to that point, and pump it with hydraulic pumps from the barges, or drop it into a basin and pump it from there into the dam. There are two reasons for that, both very good ones. One is that this material must be disposed of in any case; if not put into some works like this, it must be taken out to deep sea and dropped.

Another is that a bank can be made very much more solid in every way, with practically no shrinkage, by mixing it with water as you are putting it in. In other words, the material puddles, and the clay with very little mixture of sand, which obtains through here, would be an ideal quality of material for that construction. At the same time, I have suggested to our people that in case such construction is carried out, a certain part of the dam can just as well be made of material from the Culebra cut, brought down in trains and run on and allowed to mix with this material, so that it will all become puddling.

I know from my own experience that a bank built largely out of material cast up with shovels, put in with wheelbarrows, or dropped

from railroad trains, will settle for years to come; but I know, on the other hand, that material of this nature, put in with pumps, where, we will say, that the material as it goes into the bank is composed of about five or six parts of water to one of earth, becomes the hardest and solidest bank it is possible for man to build; and that as a rule banks built of that material in that manner are just as solid as any mountain that the Lord made of the same material. Do you see what I mean?

Senator GORMAN. That puddling of ordinary material I know applies to clay, but does it apply to the material dredged out down there?

Mr. STEVENS. Yes, sir; the material that is dredged is largely clay.

Senator MORGAN. The mountains were made in the same way by deposits from water?

Senator SIMMONS. But you suggest a mixture of some clay from the Culebra cut with that?

Mr. STEVENS. That is simply on the score of economy. We will have a large amount of stuff to deposit in any case that will have to be hauled somewhere in this vicinity.

Senator SIMMONS. Not because it is necessary?

Mr. STEVENS. No, sir; not because it is necessary, but simply from the cost of construction.

So much for the dam. Are there any more questions about that?

Senator MORGAN. Have you perfect confidence, Mr. Stevens, as an engineer, in the practicability of that dam, both in respect of the work of putting it in and of its steadfastness against all possible pressure from the Chagres waters in the future?

Mr. STEVENS. As far as the question of pressure is concerned, I do not think that admits of any discussion. Taking the depth of water and the weight that will be imposed against it at the bottom, it is something like one-sixtieth or one-seventieth of the weight of the mass; and it would be, in my opinion, like one of us going out here and undertaking to push this wing of the Capitol away from the main body of the building.

Senator MORGAN. If you had your choice between putting in at that place such a dam as is mentioned in the minority report here in great detail, and a dam of cut stone with rock foundations, if such a rock foundation could be had, which would you prefer?

Mr. STEVENS. I would prefer the earthen one—this one.

Senator HOPKINS. Give your reasons for that.

Mr. STEVENS. In the first place, I think the earthen dam, particularly if built of the dimensions they propose, could not be compared in strength with any other, because it is absolutely so strong that no power could ever move it. It is like killing a duck; when you kill him he is dead; there is no use in trying to kill him any "deader." If he is dead he is dead.

Senator DRYDEN. Mr. Stevens, you say this dam is about half a mile in length across the cut?

Mr. STEVENS. I mean thick, against the water at the base.

Senator DRYDEN. How long would it be?

Mr. STEVENS. The dam is about 7,000 feet, I will call it, across the valley.

Senator DRYDEN. A mile and a half.

Mr. STEVENS. Yes, sir.

Senator SIMMONS. And 375 feet wide at the water?

Mr. STEVENS. That is my recollection, at the water level; yes.

Senator MORGAN. Let me ask you whether the length of that dam would not so distribute what we call the pressure of the water as to make the dam of still greater resistance to the whole mass of the lake than if it was a short dam?

Mr. STEVENS. No, sir. Water pressure varies in proportion to its depth. In other words, an inch of water at a given height will give the same pressure as if it was a mile long. Taking the weight of a column of water, to get the pressure at the bottom, you can multiply it by four-tenths. In other words, in the case of a column of water 100 feet high, you get a pressure of 43 pounds a square inch at the bottom.

Senator MORGAN. I think you have expressed a doubt as to the plan, or as to the practicability, or as to the usefulness of the spillway at the western end of that dam. Have you any suggestions to make in regard to that spillway?

Mr. STEVENS. There is one point that may not be quite clear here; I think I can explain it without pointing it out on the map, for you would not see it if I did. About midway of the valley, between two or three channels of the Chagres River, and what I call the old French diversion that they undertook to build there, one of the channels, there is high ground that runs up nearly to the top of the dam; and it is on this natural ground that it is proposed to build the spillway; not through the artificial dam. That was one of the strong points, as I understand—or as I infer, rather; I did not understand anything about it; I do not know what controlled them—in favor of building the dam at that point. There is a detached mountain which forms a part of the dam. The top is, generally speaking, about the height of the dam as proposed, and at that point, through this natural ground, the minority of the board propose to build their regulating works.

Senator MORGAN. You propose, then, to dig this spillway right through that mountain?

Mr. STEVENS. Yes, sir.

Senator MORGAN. Leaving out the spurs on either side?

Mr. STEVENS. Yes, sir.

Senator SIMMONS. It is to be a part of the dam?

Mr. STEVENS. It is to be a part of the dam.

Senator MORGAN. Do you know anything about the stratification in that hill?

Mr. STEVENS. Oh, yes; it is the same as the balance. It has been bored all over. It is very largely indurated clay.

Senator MORGAN. You have a commodity down there that all the engineers call indurated clay?

Mr. STEVENS. Yes, sir.

Senator MORGAN. What is it?

Mr. STEVENS. I think it is what geologists call tufa.

Senator MORGAN. Ejected from volcanoes?

Mr. STEVENS. The definition of tufa is that it may be made either by the action of heat or by water; but I think that is wrong. My own impression is that that particular material is made by the action of water, and then afterwards hardened by heat, having been subjected to terrific heat.

Senator HOPKINS. Mr. Stevens, I wish you would indicate on the map there just where the dam is and where the spillway is to be.

Senator SIMMONS. Suppose he marks it.

Senator HOPKINS. Yes; then we can see where it is to be.

Senator SIMMONS. I think if we had that dam marked on there it would help us here very much.

Mr. STEVENS. Approximately, across there [indicating by marking]. Here is the little mountain that I speak of.

Senator HOPKINS. That is the mountain you speak of, where the spillway is to be?

Mr. STEVENS. Yes, sir.

Senator HOPKINS. Oh, yes; I see.

Mr. STEVENS. Then the dam goes across, I think, about on that line, across the high ground over here.

Senator KITTREDGE. Is it diagonally across the river?

Mr. STEVENS. Well, it is not a straight line. Yes; it crosses the little channel diagonally.

Senator HOPKINS. At what point of the dam is the spillway to be made?

Mr. STEVENS. About here [indicating].

Senator MORGAN. The extreme western terminus of that dam is in a ridge?

Mr. STEVENS. Yes, sir; over here. Yes; these mountains extend there and back. They form the crest between the waters of the Trinidad, which comes in here, and the ocean.

Senator MORGAN. It is that ridge?

Mr. STEVENS. Yes, sir.

Senator MORGAN. Now, let us get to the other end of that dam. At the other end are the locks?

Mr. STEVENS. The proposed locks are right through here.

Senator MORGAN. Are those locks at the extreme eastern end of the dam?

Mr. STEVENS. Yes, sir.

Senator MORGAN. Or does the dam extend beyond them?

Mr. STEVENS. They are just outside of the eastern end of the dam.

Senator MORGAN. Just outside?

Mr. STEVENS. Yes, sir.

Senator MORGAN. Between them and the hills?

Mr. STEVENS. They are on the hills. The high lock, of course, would be on the hills.

Senator MORGAN. Those locks, if I correctly understand it, are in three flights?

Mr. STEVENS. That is recommended; yes, sir.

Senator KITTREDGE. Where, with reference to the railway station at Gatun, does the dam cross the valley?

Mr. STEVENS. Of course it covers the whole station.

Senator KITTREDGE. I understand; but the southern side of it?

Mr. STEVENS. The center of the mass of the dam would probably be a little south of the present railway station.

Senator KITTREDGE. Do you know where the home of the mayor of Colon is?

Mr. STEVENS. Up on top of the hill?

Senator KITTREDGE. Yes, sir.



Mr. STEVENS. Yes; I do not recall his name—Sylvia is it not?

Senator KITTREDGE. I do not recall that.

Mr. STEVENS. I do not recall his name now.

Senator KITTREDGE. Where, with reference to his home, is the eastern extremity of the dam?

Mr. STEVENS. Right there [indicating].

Senator KITTREDGE. And a lock just beyond?

Mr. STEVENS. The locks would be right there at his house—right on top of that hill.

Senator KITTREDGE. At what angle does the dam cross the river?

Mr. STEVENS. That is very hard to say. Of course, it crosses the valley at right angles, but the little channel—

Senator KITTREDGE. That is what I mean—the river.

Mr. STEVENS. I could not say as to that. I should say probably not to exceed 20 or 30 degrees out of a right angle. You see, the little channel cuts no particular figure in high water. Then it is all channel.

Senator DRYDEN. What is the width of those locks?

Mr. STEVENS. The width that is proposed by the committee is 95 feet.

Senator KITTREDGE. And the length?

Mr. STEVENS. Nine hundred feet.

Senator MORGAN. Now, you have three flights of locks, have you?

Mr. STEVENS. Three flights; yes, sir.

Senator MORGAN. One above the other?

Mr. STEVENS. Yes, sir.

Senator MORGAN. They are twin locks?

Mr. STEVENS. Yes, sir.

Senator MORGAN. That would make six chambers, or six locks?

Mr. STEVENS. Yes, sir.

Senator MORGAN. What is the elevation at each of those, if you remember?

Mr. STEVENS. I do not remember; I have not seen the detailed plans, you know.

Senator MORGAN. At any rate, the whole is 85 feet?

Mr. STEVENS. The whole elevation is 85 feet.

Senator MORGAN. Divided into three locks?

Mr. STEVENS. Just how they are divided I do not know.

Senator MORGAN. Is the ground where those locks are to be located firm ground, good ground?

Mr. STEVENS. Yes, sir.

Senator MORGAN. Not marshy in any sense?

Mr. STEVENS. No, sir.

Senator MORGAN. Is it a hill?

Mr. STEVENS. Yes, sir.

Senator MORGAN. That raises the water to an elevation of 85 feet?

Mr. STEVENS. Yes, sir.

Senator MORGAN. And that elevation stretches clear across these cuttings here to Miraflores?

Mr. STEVENS. Yes, sir.

Senator MORGAN. Now, progressing from those locks, following the line of the canal, I understand that the minority report proposes to take all stumps and trees, and everything of that sort that may be found, out of the bed of the lake created by the dam?

Mr. STEVENS. They propose, as I understand their report, to provide, from the Gatun dam up to the 23.6 miles—this, unfortunately, is not given in miles; it is given in kilometers; about three-quarters of a mile—up in this vicinity here—up near Tavaernilla—they propose to have a channel not less than 1,000 feet wide, clear.

Senator MORGAN. Cleared?

Mr. STEVENS. Yes, sir.

Senator MORGAN. Cleared of everything?

Mr. STEVENS. Of everything.

Senator KITTREDGE. How deep?

Mr. STEVENS. And the water at that point would run from, say, 75 to 80 feet at the back up to possibly 50 feet throughout that distance.

Senator MORGAN. And that carries it beyond Bohio?

Mr. STEVENS. Oh, yes, sir; yes, sir.

Senator DRYDEN. Can you tell how long it would delay a boat of the largest character that would be likely to go through there to be lifted up and go through one of these locks?

Mr. STEVENS. To get through the three locks?

Senator DRYDEN. Yes, sir.

Mr. STEVENS. They ought to go through in from forty-five to fifty-five minutes.

Senator DRYDEN. Have you any idea how much expense that operation would be to the boat?

Mr. STEVENS. To the boat itself?

Senator DRYDEN. Yes; lifting it up and putting it through?

Mr. STEVENS. No, sir; I have not, because I have never gone into those details of the estimates. The minority report gives a careful estimate of the cost of operation, based on so many lockages in a year. No; I could not give you that.

Senator MORGAN. Between the lock and this point here which you have mentioned in that thousand-foot width of clearing, have you any other suggestion to make, or any alteration or improvement, except the one which you have suggested in regard to the Trinidad River?

Mr. STEVENS. No; I am not aware of any. I do not want to claim the credit, if there is any credit attached to it, of this suggestion here. It may have been known by other parties.

Senator MORGAN. I expect it was.

Mr. STEVENS. Possibly their report touches on it.

Senator MORGAN. None of us know much that has not been known before, anyhow.

Mr. STEVENS. That is right. I simply tendered that for your information.

Senator HOPKINS. Is that thousand feet in width of a uniform depth of 50 feet?

Mr. STEVENS. It is nowhere less than 50 feet, according to my recollection. Gradually, as the valley rises and the water keeps level, of course it gets a little shallower.

Senator HOPKINS. Yes.

Mr. STEVENS. But my impression is that up to that distance there is never less than 50 feet of water. I do not think there can be.

Senator SIMMONS. Where is the point you mentioned?

Mr. STEVENS. I said near Tavernilla; but it is just as liable to be four or five miles from there. I do not know, Senator; I will say an indefinite point up the valley.

Senator MORGAN. Between the points I have been referring to now you do not suggest any work in addition to what is mentioned by the minority report, except the probability of useful work being put in there in the Trinidad River?

Mr. STEVENS. I do not recall any now, Senator.

Senator MORGAN. Nothing at all?

Mr. STEVENS. No, sir.

Senator MORGAN. Then that enables us to go up to this point [indicating]. Passing now from this point up to Gamboa, what have you to say?

Mr. STEVENS. Let me refer to this plan. I think there are miles on this, instead of kilometers, so that I can clear up that point. That channel is to be not less than one thousand wide—a thousand feet or more; that is, in this level part here it would be 2 miles wide, but a thousand is the minimum. You see, that runs up to 23.66 miles. Now, you see, I was wrong. That is about a mile and a half above Tavernilla. It is very nearly to San Pablo, within about half a mile of San Pablo, that that minimum channel of a thousand feet would extend.

Senator MORGAN. After you have constructed this dam and have your lake established there and the water all over this country there would be several villages that would be submerged, would there not?

Mr. STEVENS. Yes, sir.

Senator MORGAN. That we would have to pay for?

Mr. STEVENS. Well, I do not know what arrangement would have to be made with them. They would have to get out of there, of course.

Senator MORGAN. Yes; they would have to get out.

Mr. STEVENS. They are all there on leases from the Panama Railroad, so far as I know. There are no towns or villages away from the railroad; and they are all on the Panama Railroad line land under leases subject to thirty days' notice.

Senator MORGAN. So that we have taken over the property with the privilege of dispossessing the tenants on thirty days' notice?

Mr. STEVENS. Those old Panama Railroad leases are all drawn on that basis.

Senator MORGAN. Very good.

Mr. STEVENS. Without any prejudice to the railroad company.

Senator MORGAN. Yes. What is the name of the point to which you said that extended?

Mr. STEVENS. San Pablo.

Senator MORGAN. Now we will take the canal from San Pablo up to Gamboa.

Mr. STEVENS. From this point—say from mile 24 to mile 27½—the channel is to be from 800 to 1,000 feet wide.

Senator MORGAN. That channel is to be cleared of all wood and stumps and trees and everything of that sort?

Mr. STEVENS. That is my understanding of it; yes, sir.

Senator MORGAN. That is the plan of the minority?

Mr. STEVENS. Yes, sir.

Senator KITTREDGE. There is a little excavation.

Senator MORGAN. And there would be some excavation or trimming of the spurs in order to keep the line of navigation as straight as possible?

Mr. STEVENS. There would be a little when you got up to that point; yes, sir.

Senator HOPKINS. At what point would there be the trimming you speak of?

Mr. STEVENS. I can not tell you just to what point it would extend without a proper profile, which I have not here, but somewhere in that vicinity.

Senator MORGAN. Is that a job of any special importance—the trimming out of these spurs and straightening the line and cleaning up the timber out of this place?

Mr. STEVENS. Why, only to get the longest straight channel and the longest deep channel that you can; that is all.

Senator MORGAN. It is not a very costly proceeding?

Mr. STEVENS. I do not understand that it is; no, sir.

Senator MORGAN. Nothing like digging the canal?

Mr. STEVENS. Oh, no; no, sir.

Senator MORGAN. Now we get to Gamboa. Have you any suggestions to make of improvements or changes in the plan of the minority between Gamboa and this other point?

Mr. STEVENS. You mean from Gamboa to Gatun?

Senator MORGAN. From Gamboa down to this point you mention—San Pablo. Have you any suggestions to make of any changes or improvements or betterments in that area between San Pablo and Gamboa?

Mr. STEVENS. The only possible change that I see that could be made would be one of decided change in the alignment of the canal, and I do not believe that is practicable. I do not believe any of those changes are practicable.

Senator MORGAN. You think they have the best alignment that is practicable?

Mr. STEVENS. I think they have; yes, sir. It seems to me that the old French work—the technical work of alignment of the canal—was very excellently carried out.

Senator MORGAN. And it has been followed by all of the engineers who have inspected the work since when they have examined it?

Mr. STEVENS. Practically.

Senator MORGAN. Yes, sir; very good. So the alignment would stand, and there are no other matters there. Of course, some villages would be swept out of existence along that area—Matashin and several others?

Mr. STEVENS. Yes, sir.

Senator MORGAN. And they are under the same plan of leases from the railway?

Mr. STEVENS. Yes, sir.

Senator MORGAN. Terminable at thirty days' notice?

Mr. STEVENS. Yes, sir.

Senator MORGAN. Now, at Gamboa, have you any suggestion to make that you think would improve the plan of the minority of the committee?

Mr. STEVENS. At Gamboa?

Senator MORGAN. Yes.

Mr. STEVENS. The plans of the minority report at Gamboa do not contemplate anything there excepting merely the prism of the canal. The point that you spoke of some time ago, of making a large basin there, may or may not have merit in it; but my private opinion is that it would never be needed, and I should hesitate to recommend it. But I can not recall any other suggestion that I would make.

Senator MORGAN. Is there any necessity of paving the way over which the waters would flow into the canal from the dam—I mean from up the stream?

Mr. STEVENS. Do you refer to the Chagres?

Senator MORGAN. Yes. You just take the natural bottom as it is, do you?

Mr. STEVENS. We take the natural bottom as it is, seven, eight, or nine miles away from the canal. That is where the water strikes it.

Senator MORGAN. And you put in no works at all?

Mr. STEVENS. I would not put in any works at all.

Senator MORGAN. In the Chagres River, above Gamboa?

Mr. STEVENS. No, sir.

Senator MORGAN. None at all. And you feel confident that the 35-foot or 40-foot head of water in the canal, which is brought into a lake, would furnish sufficient resistance to the flow of the Chagres River to dam it back, even above Alhajuela, and make a lake there also?

Mr. STEVENS. Yes, sir.

Senator MORGAN. In other words, that the dam at Gatun would affect the Chagres River even as far as a mile or two above Alhajuela, and convert that also into a portion of this lake?

Mr. STEVENS. My recollection is that it does not go above Alhajuela; it goes in the vicinity of Alhajuela; I do not remember just where.

Senator MORGAN. Well, wherever it may be.

Mr. STEVENS. But I think it would go far enough and make a body of dead water of such size and distance from the canal that it never would make a rush of water in the canal that would affect navigation.

Senator MORGAN. That body of water would be made dead water by the fact that there was a dam at Gatun?

Mr. STEVENS. Yes, sir.

Senator MORGAN. And by no other fact?

Mr. STEVENS. By no other fact.

Senator MORGAN. Very good; and you would be satisfied with that. Now, passing on from Gamboa to the mouth of the Obispo, how far is that? It is right at it, is it not?

Mr. STEVENS. It is very nearly at it; yes, sir—half or three-quarters of a mile.

Senator MORGAN. So that the Obispo River would also be under the influence of this dam at Gatun, and its outpour would become dead water?

Mr. STEVENS. Pardon me for digressing, but the Obispo and its tributaries, such as the Camacho on the west side—the effect of creating this lake would be to drive the water up those valleys a long distance; I do not know how far. But in case of the largest tributary on the side, which is—let me see if I can get the name of it; I can not recollect those names very well—the Mandigo; it would drive the water up the Mandigo (where, as I remember, the largest flood comes

from) something like three or four miles. It is a small river, anyway.

Senator MORGAN. And then the canal would follow practically, I suppose, the valley, or what we call the valley, of the Obispo, until it struck the ridge at Emperador, or in that vicinity?

Mr. STEVENS. Yes, sir.

Senator MORGAN. There your digging would commence?

Mr. STEVENS. The digging would commence at about at Bas Obispo, about 1 mile from Matachin.

Senator MORGAN. What is the width of the channel now from Bas Obispo up to Emperador. That is the first height, is it not?

Mr. STEVENS. Obispo is between mile 30 and mile 31. At mile 31 they narrow to 300 feet.

Senator HOPKINS. They narrow the channel of the—

Senator MORGAN. Of the canal. What is the length of that section of 300 feet?

Mr. STEVENS. About a mile and a half.

Senator MORGAN. It is about a mile and a half long?

Mr. STEVENS. Yes, sir.

Senator MORGAN. And then you strike the ridge at Emperador?

Mr. STEVENS. You would strike it between Cascadas and Emperador, a little distance east; it is where the big rise in the mountain commences. Of course, the Emperador, here, would go right on that.

Senator MORGAN. And from that point clear through to Miraflores there would be digging?

Mr. STEVENS. There would be digging; yes, sir; but from that point through the 200-foot width would extend to Paraiso—about 4 miles. Well, it is about, say, 5 miles.

Senator MORGAN. Then you have 5 miles of mountain work to dig through?

Mr. STEVENS. Yes, sir.

Senator MORGAN. With a canal of 85 feet elevation?

Mr. STEVENS. You have more than 5 miles. The 5 miles will be only the 200-foot width. Then there would be a little piece at the end, from Paraiso to Pedro Miguel, and then from east of Emperador down to Bas Obispo, the 300-foot width.

Senator HOPKINS. That 5-mile cutting that you speak of is what has been termed by some the "Culebra" cut, is it not?

Mr. STEVENS. Yes; that is what is known by the general name of "Culebra cut." It starts on this proposition: Here is Hart Obispo, and here is Bas Obispo. "Hart Obispo" means "Hart Bishop," and "Bas Obispo" means "Low Bishop." It starts right here, where these contours come in. These crooked lines represent the different elevations. There is really where the cut starts, and then it gets here to Pedro Miguel, where you drop it again at these crooked lines.

Senator HOPKINS. That is a distance of 5 miles, is it?

Mr. STEVENS. That is a distance of about 8 miles.

Senator MORGAN. Is that the 200-foot cut, the 8 miles?

Mr. STEVENS. No, sir; the 200-foot cut would start, we will say, about—let me see: Here is Emperador; here is Las Cascades, about here. From here to here it would be 300 feet; from here through to Paraiso, which is about here [indicating].

Senator KITTREDGE. Paraiso is where you strike the Culebra cut proper?

Mr. STEVENS. No; Paraiso is just on the south side of the summit of the cut. From this point here to this point here, at Paraiso, it would be 200 feet; from there [indicating] it would be 300.

Senator MORGAN. Now we will take that 200-foot section—that is the most interesting part of it, I think; can that be made any wider without very great expense?

Mr. STEVENS. Well, "expense" is a comparative term. It can be made wider, of course, at any time by simply widening it.

Senator MORGAN. You can widen it?

Mr. STEVENS. Of course; you can widen it on any plan of canal.

Senator MORGAN. So that if it is found to be too narrow we can go to work and cut it out?

Mr. STEVENS. Oh, yes.

Senator MORGAN. We can change that 200-foot width and make it 300 feet, if we want to?

Mr. STEVENS. Yes.

Senator MORGAN. Taking into consideration the fact that there will be great expense attached to it, of course?

Mr. STEVENS. Yes, sir.

Senator MORGAN. In widening it from 200 to 300 feet, you would have to trim off the slope of the mountain above it?

Mr. STEVENS. Altogether.

Senator MORGAN. All the way to the top?

Mr. STEVENS. Yes.

Senator MORGAN. Very good.

Mr. STEVENS. You would have to take off a parallel slice all the way up.

Senator MORGAN. All the way through, if you wanted to widen it; but you can widen it?

Mr. STEVENS. Oh, yes.

Senator GORMAN. What is the width on the bottom in this 200-foot section?

Mr. STEVENS. Two hundred feet.

Senator MORGAN. How long is that 200-foot cut?

Mr. STEVENS. Between 4 and 5 miles.

Senator HOPKINS. You say it is 200 feet wide at the bottom?

Mr. STEVENS. At the bottom.

Senator HOPKINS. What is the width at the top?

Senator KITTREDGE. The top of the water or the top of the cut?

Senator HOPKINS. I mean the top of the cut.

Mr. STEVENS. Oh, the top of the cut?

Senator HOPKINS. Yes.

Mr. STEVENS. I could not tell you; in some places it would be—  
Senator DRYDEN. It would vary, I suppose.

Mr. STEVENS. In some places it would be over a quarter of a mile. Neither could I tell you from memory what the slopes are, now, on the water. I think they are 1 to 1.

Senator MORGAN. Putting that 200-foot cut, which is 40 feet deep, is it not—

Mr. STEVENS. Yes, sir.

Senator MORGAN (continuing). At an elevation of 85 feet above the level of the sea, does that elevation refer to the bottom of the canal or the top part of it?

Mr. STEVENS. The 85 feet is the top; the bottom of the canal would be 45 feet.

Senator MORGAN. Yes; that goes through rock.

Mr. STEVENS. Not altogether; it goes through different classes of material. Yes; it goes through rock.

Senator MORGAN. Down to the bottom of the canal?

Mr. STEVENS. Down to the bottom of the canal?

Senator MORGAN. Very good.

Mr. STEVENS. It is of different degrees of hardness, you understand.

Senator MORGAN. I understand; but it would all require blasting or breaking up?

Mr. STEVENS. Yes, sir.

Senator MORGAN. Steam shovels, if I understand you correctly, are capable of handling that material without any special difficulty?

Mr. STEVENS. After it is—

Senator MORGAN. After it is broken up?

Mr. STEVENS. After it is shaken up, broken up; yes, sir.

Senator MORGAN. So that in the hauling out of the material from the cut there would be a saving because it would be condensed rock instead of earth—a saving in the transportation, the handling? If you handle 5 tons of rock or 4 tons or 3 tons with a steam shovel, it seems to me that would be a cheaper way of handling it than if it was earth and you had to dip it up and put it on cars and roll it out.

Mr. STEVENS. Well, no; I do not think that is quite true.

Senator MORGAN. You do not think so?

Mr. STEVENS. You must understand that rock expands, when it is broken up, very much more than earth when it is disturbed. For instance, I imagine—

Senator MORGAN. It occupies a larger area?

Mr. STEVENS. You can only tell exactly after you get through by measuring your dumps and everything of that kind, which will never be done; but I would imagine that the amount of space that you will actually haul in moving a million yards of rock—which means rock in place as God left it, as nature left it—

Senator MORGAN. Would that rock be suitable for the building of the locks at Gatun?

Mr. STEVENS. I do not think so.

Senator MORGAN. You think not?

Mr. STEVENS. If you will let me go on—a million yards of rock in place will about equal a million and a half, and possibly 1,700,000 yards, when you get it out in a dump. It expands, and earth does not expand to any such degree.

Senator MORGAN. Yes. Now, the minority of the engineers, or the commission, as I will call it, seem to think that the revetment which is put in there by the Isthmian Canal Commission (which would be, taking both sides together, about 18 miles long, a stone wall) is not necessary except at one point, where material is found that is likely to slip; but a large portion of this 200-foot cut would not need revetment.

Mr. STEVENS. I see that that is their opinion.

Senator MORGAN. Is that your opinion?

Mr. STEVENS. Senator, I do not think that any living man is competent to express an opinion which would not be subject to revision after he digs the cut; I would not care to.



Senator MORGAN. Do you think the probabilities are in favor of the position of the minority, that a continuous wall of revetment would not be necessary, perhaps, in that cut?

Mr. STEVENS. Oh, I think that is undoubtedly true; to what extent I do not know. In other words, it would not be necessary torevet both sides of the whole length of the cut, because I should hesitate to recommend a 200-foot channel if I thought that in a few years I would have to widen it and take out a wall for the whole length.

Senator MORGAN. Making an allowance for the revetment, if you have to put it in you also have to enlarge your 200-foot width of channel?

Mr. STEVENS. It should be done; yes, sir.

Senator MORGAN. So that the 200 feet should stand between the revetment walls?

Mr. STEVENS. Yes, sir.

Senator MORGAN. Clear space?

Mr. STEVENS. Yes, sir.

Senator MORGAN. In that part of the cut where this 200-foot channel is found would the walls of the canal be perpendicular?

Mr. STEVENS. That is the recommendation of the board, that in those narrow channels they should be made perpendicular and smooth.

Senator MORGAN. Do you concur in that recommendation?

Mr. STEVENS. Yes, sir; I think that is necessary.

Senator MORGAN. You have no objection to make to their position on that point?

Mr. STEVENS. No, sir. Here is a map or a profile or a section which was made from some additional borings which Mr. Wallace made during his connection with the enterprise; and while this does not show all of the borings, as you understand, it gives a general idea of the Culebra cut. At every kilometer (which is about 3,600 feet) they bored a hole down to 40 feet below sea-level, and took out the cores; and we have the cores on the Isthmus. This, however, will give you a pretty good idea of what these cores developed. This is Bas Obispo, where the heavy cutting would really commence.

For instance, that is an elevation of 50 feet. Here is an elevation of 40 feet. In other words, with a high level, 85-foot project, there would be the bottom of the canal (you understand, this is shown in section, like you would cut through an apple) right along through there; and above that the material would have to come out.

On a sea-level proposition this additional amount would have to come out, down here, down to 40 feet, minus 40. That boring developed fairly hard rock—I know that is rock, because I have cut a hole through there myself, and laid a track through there. Here there is fairly hard rock, very hard rock; here is another boring. These are kilometers 47, 46, 48; “very hard rock;” “very hard with quartz seams.” So, answering your question, you can say that probably with very hard rock that part of the canal would not necessarily need any revetment, assuming that these borings in here of rocks are the same—which is purely an assumption, but a very intelligent one.

Senator MORGAN. That is a safe assumption, is it?

Mr. STEVENS. I should say so; yes, sir. They have additional borings that are not shown here. These were simply put on every kilometer. At this point, kilometer 48, we found medium hard rock,

soft blue rock; then they struck medium hard rock; very soft black rock; conglomerate, with green talc; gray sandstone; hard rock; brown sandstone; hard greenish-black rock; soft, dark decomposed rock, reddish shade. That is the way it goes clear through.

Senator MORGAN. This is the line 40 feet below sea level?

Mr. STEVENS. Yes, sir; that would be the bottom of a sea-level canal of a depth of 40 feet. Now, you are getting up toward Emperador. Here is the big Culebra cut. Emperador is here. Now, we will find that line again.

There is 90, 60, 50, 45—here would be the bottom of your canal again, and all this mass would be taken out, in the case of the high level, down to this elevation. In the case of a sea level, it would be taken out down here [indicating]. Reading these again—I read that on the other—you see it says, "Soft blue rock: soft reddish rock; soft blue rock; hard blue rock; fairly hard and sandy talc; hard blue rock; very hard blue rock; hard rock, quartzite seams; very hard, many quartz seams; blue hard rock." So it goes on down—"medium hard, very hard blue rock; same with quartz seams." So you see that the strata of rock through there is very hard.

Senator MORGAN. Is that the 85-foot level?

Mr. STEVENS. Yes, sir. Here you have it half way between Emperador and Culebra—"hard conglomerate; very hard black, sandy talc; hard light-colored sandstone; soft black talc; sandstone; black talc sandstone; conglomerate talc sandstone; soft black talc; very soft black talc." Now, you see at that particular place the rock softens up.

Senator MORGAN. What is the last quotation here?

Mr. STEVENS. "Very soft black talc."

Senator MORGAN. Is that what you call indurated clay?

Mr. STEVENS. No, sir.

Senator MORGAN. It is not?

Mr. STEVENS. I have never seen any indurated clay south, I think, of San Pablo; and I am inclined to think that the material you spoke of the other day that was put into a bucket of water and dissolved was not indurated clay; I think that was clay from the Culebra cut. I noticed that General Ernst was quoted as the man who did it. I have not seen the General for two or three days. I am going to ask him where he got the sample from.

Senator MORGAN. Yes—well, he got it out of the well that the French dug there. Do you know where that is?

Mr. STEVENS. They dug wells at several places; I do not know exactly where.

Senator MORGAN. That is where he got it.

Mr. STEVENS. "Hard trap rock; medium hard blue tufa." That may be indurated clay at that point, but I never have seen it, and we have big cuttings through there now. This is the real Culebra cut, clear through here. You see, it is not very much raised from Emperador; and when you get west of here it immediately commences to drop. I have brought these maps and profiles over, Senator, thinking they might be interesting.

Senator MORGAN. Yes; they are very interesting. I wish we had a lot of them distributed through the Senate.

Mr. STEVENS. Well, you can get them. Those are the only ones I could pick up here; you know, I do not keep any of my records

here at all, because I have no connection with the engineering office here. That was simply for the benefit of the consulting board. We have on the Isthmus an endless amount of this stuff. "Soft and medium hard blue rock; a few hard embedded bolts. Material below this lock will require blasting before excavation."

It was necessary to use a diamond drill in boring that, Senator, which means that it was very hard. Now, where is 45 again? It is right here. Now, you simply see the strata platted here. That is soft rock, soft yellow rock, below that line. There is where you strike the real rock—"medium hard sandstone, a few bolts; hard sandstone; very hard lava; conglomerate; conglomerate; soft tufa." This will be the bottom of the canal, here.

Senator MORGAN. You are going down the hill now?

Mr. STEVENS. Yes, sir. Now, to explain, I will say that the 200-foot section comes through, of course, the heavy part of the cut. When you get down here, and the cutting gets so shallow, it widens out from here down to Pedro Miguel to 300 feet.

Senator MORGAN. Three hundred feet?

Mr. STEVENS. Yes.

Senator MORGAN. Now, we will take up that section. Do you apprehend any difficulties in digging the canal there, in that 300-foot section, as wide as is proposed by this minority report?

Mr. STEVENS. In the 300-foot section?

Senator MORGAN. Yes.

Mr. STEVENS. Difficulties of what nature?

Senator MORGAN. I mean, very serious engineering difficulties in widening the canal from 200 to 300 feet.

Mr. STEVENS. Oh, you mean in going from the 200 to the 300 foot width?

Senator MORGAN. Yes.

Mr. STEVENS. Why, I do not know of any, Senator. There is just so much more digging, but it is not as deep.

Senator MORGAN. More digging, and not as deep; and then it is flanked by hills on both sides?

Mr. STEVENS. The hills fall back farther, you know.

Senator MORGAN. Yes; but it is flanked by hills on both sides?

Mr. STEVENS. Oh, yes; the whole 8 miles is flanked by the mountains.

Senator MORGAN. Yes. Now, we will go on from that 300-foot cut. What is the next cut—the next width?

Mr. STEVENS. That brings you to Pedro Miguel. From Pedro Miguel for about 2 miles they widen it to 500 feet. That takes you to the vicinity of Miraflores, or a little below.

Senator MORGAN. You are now down the hill slope?

Mr. STEVENS. Oh, yes; away over on the Rio Grande.

Senator MORGAN. Does the digging there present any serious difficulties?

Mr. STEVENS. No, sir; not that I recollect. No; it does not. Excuse me if I locate myself on the map here. No; that 2 miles is through the section between and including Pedro Miguel and Miraflores.

Senator MORGAN. Now, from Miraflores?

Mr. STEVENS. It is given right here, I think.

Senator MORGAN. From Miraflores southward; what is the next width?

Mr. STEVENS. The next width is 1,000 feet or more. You strike the lake then. Understand, that 500 feet through that mile or two is really coming from the artificial part of the canal into the lake.

Senator MORGAN. That is Lake Sosa?

Mr. STEVENS. Yes, sir.

Senator MORGAN. And that is a triangular lake; it is triangular in its general outline?

Mr. STEVENS. Yes, sir.

Senator MORGAN. You pass through that lake, and you get then to the depression between Sosa and Ancon?

Mr. STEVENS. Yes, sir.

Senator MORGAN. And in that depression you put your tide lock?

Mr. STEVENS. No, sir. In that depression, you say? You are speaking of the—

Senator MORGAN. Between Ancon and Sosa.

Mr. STEVENS. You are speaking of the minority report?

Senator MORGAN. Yes, sir.

Mr. STEVENS. Well, then, we are all wrong. The line of the canal according to the minority report does not pass between the two hills.

Senator MORGAN. Oh, no; that is a fact. It passes to the westward of Ancon.

Mr. STEVENS. To the west of Sosa.

Senator MORGAN. To the west of Sosa?

Mr. STEVENS. Yes, sir.

Senator MORGAN. Where do the minority put the tide lock?

Mr. STEVENS. They put two of their locks, which, of course, would answer that purpose, at this point—at La Boca, at Sosa.

Senator MORGAN. Two locks?

Mr. STEVENS. Yes, sir; and the other lock at Miraflores.

Senator MORGAN. Two locks at Sosa?

Mr. STEVENS. Yes, sir.

Senator MORGAN. What are the elevations of those locks? What is the lift?

Mr. STEVENS. Fifty-five feet is the sum of the two.

Senator MORGAN. Between the two?

Mr. STEVENS. Yes, sir.

Senator MORGAN. Fifty-five feet elevation?

Mr. STEVENS. Of both locks; that is, the elevation of the lake is 55 feet.

Senator MORGAN. Yes. Now, does the minority propose any tide lock at all?

Mr. STEVENS. Only these locks. They expect them to answer for tide locks.

Senator MORGAN. But they provide no separate tide locks outside of these?

Mr. STEVENS. No, sir. There is another lock, you know, to make up the 85 feet, at Miraflores.

Senator HOPKINS. How far away is that?

Mr. STEVENS. About 4 miles.

Senator MORGAN. This is to the north of Sosa?

The CHAIRMAN. Will you be kind enough to mark those locks on there?

Senator KITTREDGE. He has marked them.

Mr. STEVENS. I do not think I have at Sosa, if you will excuse me.

Senator KITTREDGE. I know you marked this one at Gatun. You indicated, and I thought you marked them.

Senator MORGAN. Now, the minority have a lock at Miraflores; then they have two locks at Sosa?

Mr. STEVENS. Yes, sir.

Senator MORGAN. Are they in a flight, one above the other?

Mr. STEVENS. At Sosa, yes, sir; duplicates.

Senator MORGAN. Duplicates?

Mr. STEVENS. There are four chambers.

Senator MORGAN. That will be four chambers?

Mr. STEVENS. Yes, sir.

Senator MORGAN. And that is the end of their locking?

Mr. STEVENS. Yes, sir.

Senator MORGAN. And from that point out it is a sea-level canal? The canal is dug in 40 feet below sea level?

Mr. STEVENS. Yes, sir.

Senator MORGAN. From that point out to the islands?

Mr. STEVENS. Three hundred feet in width.

Senator MORGAN. Three hundred feet wide and 4 miles long?

Mr. STEVENS. About 4 miles, to the 45-foot contour.

Senator MORGAN. Now, just for the sake of comparison and getting the idea into the minds of the committee, the majority report, the sea-level report—puts a tide lock in use in this depression between Sosa and Gatun?

Mr. STEVENS. No, sir; no, sir; they put nothing there.

Senator MORGAN. They put nothing there? Where do they put that tide lock?

Mr. STEVENS. They put it at Miraflores.

Senator MORGAN. And then they dredge from that point out?

Mr. STEVENS. Yes, sir.

Senator MORGAN. To 40 feet below sea level?

Mr. STEVENS. Yes, sir.

Senator MORGAN. Out to the same point that you would reach, that the other half of the committee would reach. The twin locks at Sosa proposed by the minority, as I understand it, dispense with any tide locks for the purpose of regulating the inflow and the outflow of the tides?

Mr. STEVENS. Yes, sir.

Senator MORGAN. They dispense with it?

Mr. STEVENS. Yes, sir.

Senator MORGAN. Whereas, on the other side, the majority put this sea-gate, or regulating lock, at Miraflores?

Mr. STEVENS. Yes, sir.

Senator MORGAN. How far back is that from the Sosa twins?

Mr. STEVENS. That is about 4 miles.

Senator MORGAN. Four miles back?

Mr. STEVENS. Yes, sir.

Senator MORGAN. So that the tide lock, as we call it—I believe that is the proper name for it—that is proposed by the majority of the committee would be about how many miles from the coast?

Mr. STEVENS. Do you mean high-tide line, or out at the 40-foot line in the bay?

Senator MORGAN. The 40-foot line in the bay.

Mr. STEVENS. It would be about 8 miles.

Senator MORGAN. Eight miles?

Mr. STEVENS. Yes, sir; say eight and a half.

Senator MORGAN. Yes. So that the distance—that is eight and a half miles, and there is 3 or 4 out into the bay—would be 11 or 12?

Mr. STEVENS. No; I mean eight and a half in all from Miraflores.

Senator MORGAN. In all?

Mr. STEVENS. Yes, sir.

Senator MORGAN. So that that eight and a half miles would be dug or dredged 40 feet below mean sea level?

Mr. STEVENS. Yes, sir.

Senator MORGAN. On the majority plan?

Mr. STEVENS. Yes, sir.

Senator MORGAN. Would it be dredged from the twin locks at Sosa to the same depth on the minority plan?

Mr. STEVENS. There would be no dredging at all until you got within about a mile and a half of Miraflores; you would have the lake navigation there.

Senator KITTREDGE. I do not think you understood the Senator's question, Mr. Stevens.

Mr. STEVENS. No; I do not think I did.

Senator KITTREDGE. As I understand it, he asked if there was any difference between the plan of the majority and the minority from the twin locks seaward?

Mr. STEVENS. Only in the alignment. In one the line would pass between the two mountains, Sosa and Ancon, and in the other on the outside. Then there is a difference—no; there is the same width, 300 feet. No; there would be no difference. There is one point that you undoubtedly asked me about that I may have passed over. Under the minority report they propose to regulate the lakes by spillways between these mountains.

Senator KITTREDGE. Yes.

Mr. STEVENS. They are both rock, and the spillways, of course, are founded right on the rock. The rock there is very close to the surface.

Senator HOPKINS. Just indicate on the map where the spillway will be.

Mr. STEVENS. It will be directly between these mountains. You see, they put a dam across here [indicating]. The spillway would be right here.

Senator HOPKINS. Yes. Now, tell us something about the dimensions of that dam, please, and the character of it.

Mr. STEVENS. I can not tell you from my memory, now.

Senator MORGAN. The minority report shows the dimensions exactly. They were very careful in stating the dimensions.

Mr. STEVENS. Yes. I know it is very large, very wide, and all that; but I can not tell you exactly.

Senator HOPKINS. That is to be an earth dam, the same as the one on the other side?

Mr. STEVENS. Yes, sir; and I recommended to build it in the same way—to take the dredged material.

Senator MORGAN. Now we have passed through from one side to the other in the examination of the axis of the canal. Suppose that a sea-level canal were dug between the same points, from the 40-foot

contour in the Bay of Limon out to the islands in the Bay of Panama, on the plan that the majority propose; what would be your opinion as to the comparative safety of navigation upon the two canals, taking the same size ships, taking the largest-sized ship that could be expected to go through?

Senator HOPKINS. It is now quarter of 1 o'clock; suppose we adjourn until half past 2, and then take up that question?

Senator MORGAN. Let me get this answer, and then we can adjourn.

Senator HOPKINS. Yes.

Mr. STEVENS. To give you my opinion I would necessarily have to give you some reasons why I have that opinion.

Senator MORGAN. Of course.

Mr. STEVENS. And that involves going through in detail and showing you—which I have summarized here—the comparison of widths between the canal on the other side, to show you the widths that are proposed in the majority report.

Senator MORGAN. Yes. What I want to get at is your opinion as to the comparative safety of ships in the respective canals as they are proposed to be dug by the minority and the majority.

Mr. STEVENS. My opinion is that a very large ship could never be assured of getting through a sea-level canal of the dimensions reported without grounding, unless she ran at such speeds as would practically destroy the usefulness of the canal, for this reason: That out of the 49 miles there is over 29 miles that is only 200 feet wide; and you can see from the map that it is more or less tortuous in direction. I think that this situation would be accentuated by the immense number of small streams carrying flood water directly into the canal at the depths that they would, from 30 to 150 or 160 feet. They are constantly carrying in detritus that would make shallow bars that would very soon render the navigation of such a canal impracticable for large ships, and sooner or later for all ships, unless there were a fleet of dredges kept constantly working from one end to the other to keep it open.

Senator MORGAN. Right there let me ask you this question: We have a cut there 200 feet wide through Culebra Hill?

Mr. STEVENS. Yes, sir.

Senator MORGAN. The bottom of it is rock, alternating with dikes of other material that come up between. Is it practicable to make the floor of such a canal so smooth as to make dredging inexpensive or comparatively inexpensive? Can you make the floor of it smooth?

Mr. STEVENS. Why, yes, sir; certainly. You would expect to make the walls smooth, anyway, by channeling. You mean to make the bottom of the canal so smooth that it can be dredged?

Senator MORGAN. Yes.

Mr. STEVENS. Oh, yes.

Senator MORGAN. There is no difficulty in that proposition?

Mr. STEVENS. It can be done all right.

Senator MORGAN. Then I will dismiss that subject from my mind, at least. So that as to dredging a sea-level canal and dredging an 85-foot elevation lock canal, it is about the same in the one case as in the other?

Mr. STEVENS. Over the same length of distance?

Senator MORGAN. Yes.

Mr. STEVENS. But in the one case you have 5 miles 200 feet, and in the other you have 21 miles.

Senator MORGAN. That is the difference?

Mr. STEVENS. That is the difference.

Senator MORGAN. You have 21 miles to take care of?

Mr. STEVENS. You have 21 miles of 200 feet in the sea-level canal, and only 5 miles in the high-level canal.

Senator MORGAN. Twenty-one miles of dredging against 5 miles?

Mr. STEVENS. In those narrow channels.

Senator MORGAN. Yes.

Mr. STEVENS. Then you would have, in the case of the sea-level canal, 18.85 miles—almost 19 miles—of 300 feet width. In the high-level canal you would have 6.8 miles only.

Senator MORGAN. Yes. Is there any material, practical difference in the curves in the two proposed canals, the lock canal and the sea-level canal?

Mr. STEVENS. Oh, yes, sir. All the way up through the lakes, of course, your curvature cuts very little figure on account of your wide channel. In the lake navigation the wider your channel your curve immediately becomes easier, because you have such a width in which to make your swing.

Senator MORGAN. Yes; of course.

Mr. STEVENS. Whereas in the lower channel of the sea-level canal you are confined to this narrow 200-foot channel all the time.

Senator MORGAN. Yes. So that if the curvature was the same in the two cases in the actual line of the canal, the advantage would be in favor of the larger body of water?

Mr. STEVENS. Oh, every time, of course.

Senator MORGAN. Is there any practical difference in those parts of the line as to curvatures, for instance, through Culebra Heights, Emperador Heights?

Mr. STEVENS. Not through the heavy part of the canal.

Senator MORGAN. They both run on the same curves?

Mr. STEVENS. Yes; on the same curves. There was a question raised in the Board (and I am not clear whether the minority report or either report indorses it) to the effect that there should be no curves in the canal, properly speaking; not as you lay them out on a railroad.

(The committee thereupon took a recess until 2.30 o'clock p. m.)

#### AFTER RECESS.

#### STATEMENT OF JOHN F. STEVENS, ESQ.—Continued.

The CHAIRMAN. Senator Morgan, do you not think we had better continue along the line that was interrupted at recess? You and Mr. Stevens were making it interesting, and I think we had better proceed and finish up the minority report.

Senator MORGAN. I shall have few questions to ask Mr. Stevens about the situation there now. I think I comprehend it, and I suppose the members of the committee all comprehended everything about it, although perhaps they have not studied it as closely as some of us, for many years, at least. I think I am pretty well through with my line of questioning.



I asked Mr. Stevens a question the other day that I would like him to make a statement about. "Take the present income of the railroad and apply that to the payment of a sum of money bearing interest at the rate of 2 per cent, what would be the capitalization upon the basis of the present income of the canal, at 2 per cent upon the sum, whatever it is, that would be required?" He answered my question the other day in writing. I suppose you have the question right in your mind? Perhaps I have not stated it exactly.

Mr. STEVENS. My understanding of the question was, if I recollect rightly, "taking the net income of the railway?"

Senator MORGAN. Yes.

Mr. STEVENS. For instance, applicable to dividends, if they were proposing to pay dividends, or interest on bonds. I do not recall just now what the net income was, but I think the assumption was that it was about \$700,000—

Senator MORGAN. I think you put it at that, about \$700,000; and you put the capitalization that would be required, at 2 per cent, to cover the investment, at twenty millions of dollars. In other words, that the canal as it is there now (free from debt, of course), out of its present earnings, over and above the charges for maintenance and conduct, would yield 2 per cent on twenty millions of dollars, that 2 per cent being our rate of interest, practically. I suppose the value of the railroad at present would be considered as twenty millions of dollars, if the debts were all paid off, the outstanding bonds, and so on. Now, would you expect that in the future the income of the railroad would be increased over what it is now?

Mr. STEVENS. After the construction of the canal?

Senator MORGAN. Up to the date of its completion, I will say, first.

Mr. STEVENS. Well, I do not know that I could answer that, for two reasons: One is that there will undoubtedly be always, until a canal is completed, a fair amount of commercial business. This will be increased by the work on the canal. It certainly will not become less. Perhaps the Panama Railroad will be shortly subject to competition by the northern route, the Tehautepec Railway. How far that competing road will have its effect on the commercial business there, I can not say.

Senator MORGAN. Assuming that the state of progress that has been made since that railroad was built is continued, as well as the commercial development and commercial intercourse between the countries that are supplied with ocean navigation on the Pacific and on the Atlantic, would you not suppose that the income of that railroad would be increased proportionately, say, in the next fifty years?

Mr. STEVENS. No, sir.

Senator MORGAN. Why not?

Mr. STEVENS. Well, I am not a statesman, and not much of a political economist. I can not understand, when we do not get very much of the trade of the eastern coast of South America, why we should naturally expect very much on the west coast.

Senator MORGAN. I do not propose to go into any tariff argument about it. I think I know exactly where the trouble is, but I do not want to go into that, you know. I do not want to assume that we are going to have an era of free trade, because I do not think we are. But the natural growth of commerce, the world over, is very large.

Mr. STEVENS. Yes.

Senator MORGAN. Notwithstanding its development on the eastern coast of South America has been comparatively slow. But, taking now the increased facilities of commerce for the exportation of very heavy material, that otherwise would never float into commercial channels at all, in consequence of the rapidity and cheapness of the transportation, would you not suppose that this railroad property there, if it stood alone, and not in connection with the Tehuantepec road or any other road that might be made through Guatemala or elsewhere, it would increase in the next fifty years in proportion to its increase in the past fifty years?

Mr. STEVENS. I should look for an increase, but I can not say at what rate it would increase.

Senator MORGAN. Would you look for an increase of double the present commerce?

Mr. STEVENS. I should not want to be called on to state definitely just what the increase would be. I think there would be an increase.

Senator MORGAN. But if such an increase should occur, then the capitalization would be \$40,000,000?

Mr. STEVENS. It would increase in proportion to its net earnings.

Senator MORGAN. It would be double the present income, which would be \$40,000,000. That would cover the cost of the purchase of it, and make it a good property, at \$40,000,000.

Mr. STEVENS. It would seem so.

Senator MORGAN. When the canal is completed, it is the general supposition that that railroad will be thrown away, and that except for merely local traffic it would hardly be worth keeping up?

Mr. STEVENS. I see very little use for it once the canal is completed.

Senator HOPKINS. Right there: If the canal is constructed as suggested by the minority of the Commission that has been down there, will not that destroy a large part of the road itself—I mean, physically destroy it?

Mr. STEVENS. Miles of it.

Senator MORGAN. I was coming to that in a moment, when I got the other proposition squarely before the committee. So that in contemplating the future of this canal and the financial situation that it will create, we must calculate on throwing away property that is now worth \$20,000,000, and if its income should be doubled by the time the canal is completed we will throw away \$40,000,000 worth of property. That, then, will be added to the expense of any canal through Panama, whether a lock canal or a sea-level canal—the throwing away of \$40,000,000 that we necessarily invest, besides what we are going to invest, or are obliged to invest in making the changes of location?

I wish to ask you about these benches that run along the diggings, through, for instance, the Culebra Heights. Are they wide enough to sustain railroad beds?

Mr. STEVENS. The benches as proposed?

Senator MORGAN. As they exist. In the diggings you have left benches.

Mr. STEVENS. Yes, sir.

Senator MORGAN. They have been left?

Mr. STEVENS. Yes, sir.

Senator MORGAN. Are they wide enough to sustain railroads?

Mr. STEVENS. That is, work tracks, to do the digging on?

Senator MORGAN. Yes.

Mr. STEVENS. Yes, sir.

Senator MORGAN. So that it is not necessary, really, that the railroad that is carried through this cut should be built right on the berm of the canal? You could carry it up to the next bench, if you choose?

Mr. STEVENS. Oh, yes, sir.

Senator MORGAN. So that, whether it is a sea-level or a lock canal, there will be through all of the cuts facilities for building railroad lines?

Mr. STEVENS. On the slope of the cut; on the benches in the slope?

Senator MORGAN. Yes.

Mr. STEVENS. Yes, sir.

Senator MORGAN. All along through?

Mr. STEVENS. Yes.

Senator MORGAN. Those roadbeds will be good beds?

Mr. STEVENS. Oh, undoubtedly.

Senator MORGAN. Now, then, in changing the location of the railroad, that ought not to be finally changed, I suppose, until you have got the benches constructed there at such elevations on either side of the diggings as will enable you to haul your trains, of course, conveniently at proper gradients?

Mr. STEVENS. Yes.

Senator MORGAN. I think I noted in the proposition of the minority of the board that the bed of the railroad, as at present located, would have to be changed, and that it would pass through the ridge that makes the abutment of the locks at Gatun. It would have to pass through that ridge?

Mr. STEVENS. Yes; it would either have to pass through that ridge or go over it.

Senator MORGAN. Is it practicable at present to carry the railroad right along up the right bank of the Chagres and through these cuts? Is it practicable to make a change at the present time?

Mr. STEVENS. Not without building a new roadbed.

Senator MORGAN. Not without building a new roadbed?

Mr. STEVENS. No, sir.

Senator MORGAN. You have got the great gap cut down to a certain depth and are proceeding to cut it down, and indeed you have got railroad lines or tracks—

Mr. STEVENS. But not lines of the Panama Railroad proper.

Senator MORGAN. I know; other tracks, though, that are usable for transporting the soil?

Mr. STEVENS. Yes, sir.

Senator MORGAN. Take from one side to the other of that 8-mile cut there; is it in such condition as that the Panama Railroad could at present be located through that cut?

Mr. STEVENS. The track could not be laid without a great deal of work, to get from point to point.

Senator MORGAN. The minority report seems to provide for the crossing of the canal by the railroad at some point about Bohio, or above Bohio, when the final location is made. When you showed the route of the railroad, to make room for this lake it seems that they go up on the right bank of the Chagres River and cross over to the left bank, and then get into the track that they have got now, which winds around this Culebra Hill.

Mr. STEVENS. That is not my impression, Senator.

Senator MORGAN. It is not your impression?

Mr. STEVENS. I would not recommend it in any case.

Senator MORGAN. What is your impression about where that railroad track is to run?

Mr. STEVENS. It should run east, or on the right bank of the Chagres, all the way, on the valley of the lake.

Senator MORGAN. All the way through?

Mr. STEVENS. Clear through the cut to Panama. I would not attempt to cross the canal with it at all.

Senator MORGAN. That was my difficulty. Evidently, I think, the minority report here provides for the crossing of this lake by this railroad, and I did not understand why that was necessary.

Mr. STEVENS. I would not advocate putting any bridges or anything like that across.

Senator MORGAN. It would be impracticable. So that when we come to the final location of that railroad, the permanent location of it, if we may say so, it must be on the right bank of the Chagres River?

Mr. STEVENS. I should certainly say so; yes, sir.

Senator MORGAN. And it would cross the river on the dam at Gamboa, if there was one, and if not, on a bridge?

Mr. STEVENS. Yes, sir.

Senator MORGAN. That, then, means that whether you have a sea-level route or whether you have a lock canal this railroad, to answer the purposes for which it is designed, both in assistance of the canalization of that country and also transporting commerce, must go up the right bank of the Chagres and cross it about Gamboa, or at Gamboa, and then on through on that same side of the canal until it gets down to the coast?

Mr. STEVENS. Yes, sir; that would be my idea.

Senator MORGAN. Then either plan, the sea-level canal or the lock canal, implies that that railroad is to be taken up and built through, from Colon to Panama, along the right bank of the Chagres River, thence right along on the same side of the canal until you get to Panama?

Mr. STEVENS. That is my understanding; yes, sir.

Senator MORGAN. That would have to be done, I suppose, within the next five years?

Mr. STEVENS. Well, the roadbed would necessarily have to be prepared during the construction of the canal; but you would not necessarily lay the track until just before you were ready to destroy the railway—that is, to finish the canal.

Senator MORGAN. So that the transference of this railroad from one roadbed to another, and its maintenance, from this time until the canal is completed, is likely to involve very heavy expenditures?

Mr. STEVENS. Yes, I think both reports have covered their estimated cost. It is included in their totals.

Senator MORGAN. What grade would you think you could afford to have through these cuts for a railroad that would answer all the purposes that this road is designed for?

Mr. STEVENS. Well, as I said before, I can see very little use for a railroad after the canal is built. Therefore I would necessarily build a comparatively cheap line.

Senator MORGAN. A steep line?

Mr. STEVENS. A cheap line. I would use moderately sharp curvature and heavy grades. I should think  $1\frac{1}{2}$  to 2 per cent would be allowable.

Senator MORGAN. A line that would be 50 feet above the surface level of the canal would not be too high, would it?

Mr. STEVENS. I do not see the necessity for putting it that high. The higher you go in a mountainous country, as a rule, the sharper the slopes and the more the expense of construction.

Senator MORGAN. There is no practical difficulty in building a railroad through—no engineering difficulty?

Mr. STEVENS. No, sir; nothing but what can be done within reason.

Senator MORGAN. Many railroads are built over worse ground than that?

Mr. STEVENS. Undoubtedly.

Senator MORGAN. That is all I desire to ask. Later on I shall have a question to ask Mr. Stevens about another matter.

Senator HOPKINS. Was not Mr. Stevens after the recess to go on and give a full explanation of the majority report and what they suggested?

Senator KITTREDGE. I would like to ask one question, if I may: What does the minority report of the consulting engineers recommend in regard to the minimum usable dimensions of the locks?

Mr. STEVENS. Nine hundred feet long and 95 feet wide, according to my recollection.

Senator KITTREDGE. I noticed in the report of the board this statement: "As a basis for all plans, the board resolved by 11 affirmative votes and 2 negative that the locks should have as minimum usable dimensions a length of 1,000 feet, a width of 100 feet, and a depth of 40 feet."

Mr. STEVENS. I think the minority report made different recommendations afterwards. I am not able to put my hand on it in this report, but that is my recollection of it. I may be able to find it here. As a matter of fact, most men who are familiar with locks prefer in locking a ship through to have very little clearance between the side of the ship and the side of the lock wall.

Senator KITTREDGE. That is, no doubt, true; but I assume that the recommendation of the board was to enable the locks to accommodate the largest ships that might in the future be constructed.

Mr. STEVENS. Yes, sir.

Senator KITTREDGE. That was the purpose?

Mr. STEVENS. They have gone into it very thoroughly here in their report—very exhaustively, at least.

Senator KITTREDGE. Why does the minority report of the board say 900 feet?

Mr. STEVENS. I could not tell you that.

Senator KITTREDGE (continuing). Instead of a thousand feet, as all but two seem to state in the report.

Mr. STEVENS. I do not seem to find that now, but that is my recollection. Of course, I may be wrong. My recollection is that they recommend 900 feet usable length and 95 feet breadth.

Senator KITTREDGE. I can find it later just as well. You have thus far said nothing about the cost, Mr. Stevens, of the construction of the

canal recommended by the minority of the consulting engineers, or of the time that it would take to build the canal.

Mr. STEVENS. As I said in commencing this programme to-day, I did not consider myself delegated to go into all those matters. The consulting board, I understand, was created to furnish information to the Commission and to Congress. I have, however, checked independently of the board, and independently of anyone, an exactly similar proposition, before any figures that the board had made were available, and my figures correspond very closely with those that are given here.

Senator ANKENY. You mean in the minority report?

Mr. STEVENS. The minority report; yes, sir. In other words, my figures at the outset were 150 millions; and I believe their estimate here is 139,700,000.

Senator KITTREDGE. Does that mean \$150,000,000 in addition to the amount already appropriated?

Mr. STEVENS. As the work stands to-day, with the cost of the equipment that has been ordered in.

Senator KITTREDGE. One hundred and fifty millions in addition to that?

Mr. STEVENS. No; the cost of the equipment that has been ordered up to this time would be included in that.

Senator KITTREDGE. Up to date 21 millions have been appropriated for construction purposes; is the 150 millions you have mentioned to be in addition to that sum?

Mr. STEVENS. Only in part, I think. I could not tell without going back to my notes in regard to that. I do not know that I kept my notes. I do not think I did. You see, Senator, I have had to depend, like all the rest of the people, on the figures that these men have made, largely.

Senator KITTREDGE. I understand. I simply wanted to get your ideas of these matters as we go along. Can you tell us what your recollection is as to what part of the \$21,000,000 already appropriated is to be included in this 150 millions?

Mr. STEVENS. I could not tell you that. I do not recall now.

Senator MORGAN. Suppose we take up the sea-level canal.

Senator KITTREDGE. May I ask another question? What about the question of time in the construction of the canal recommended by the minority of the consulting engineers?

Mr. STEVENS. In running through the details, before they made their report, of a plan along similar lines, and making the allowances I felt justified in making, I figured about one year less than they have. I think they figured eight years or nine years, and I figured, I think, seven. Possibly their estimate is a safer estimate than mine.

The CHAIRMAN. Mr. Stevens, suppose you take the report of the majority of the Board, and go through it, having gone over this minority report pretty generally with the committee. I think we had better take that up right from the report itself. Have you a copy of it there?

Mr. STEVENS. Yes, sir. I was looking to find that statement of the dimensions that we had this morning. If I had known the lines which this talk would take, I would have gotten things in concrete shape, so that I could answer questions more accurately. The fact

of the matter is that I have not read either of these reports for several days, and I have only read them twice each. I have taken no time to prepare. Along what line do you wish me to proceed, Mr. Chairman?

The CHAIRMAN. I think you had better read along, and let the gentlemen present ask you any questions they may desire to put.

Senator HOPKINS. Why not first show us the canal as it will be if constructed along those lines, and then elaborate it along practically the same lines as you did the minority report?

Mr. STEVENS. I will show you, as far as I can, on this map. The map is not complete for this project.

Senator GORMAN. Is there any better map obtainable?

Mr. STEVENS. I do not know of any better map.

The CHAIRMAN. They sent that to us from the Commission as the best they had.

Mr. STEVENS. You understand that the maps to accompany these reports have none of them been filed yet.

As nearly as possible I tried to illustrate this morning the changes, or rather the definite location that the board—and when I say “board” I mean the sea-level project—reported on, going north, out to sea, here at Colon, and leaving the present line of the canal, which you understand is here at about this point [indicating on map].

Senator GORMAN. Name the points as you mention them.

Mr. STEVENS. Well, we will call it near Mindi. It is hard work to state specifically, because the distances are so long here, and they have not given any definite points, except a few. Swinging out, about as indicated, cutting through this point and making the terminus of the canal proper, the 41-foot line, about where my ruler is on the map here.

In other words, they come through more like that [indicating on map], forming that channel as shown on this list, from Limon Bay, that meets the outer harbor line, for a distance of 4.07 miles, 500 feet wide; that 4.07 miles extending about to Mindi. I will refer to this other map on the table here for distance, because it is the only one that has the miles mentioned on it. [After consulting map.] Yes; extending to Mindi. The breakwater would lie outside of that, paralleling this channel, clear out to the harbor line. My recollection is that they put a short breakwater on the inner side, too, at Mindi.

Senator KITTREDGE. That breakwater is near the present town of Colon or Cristobal.

Mr. STEVENS. Right out through the harbor. It runs in front of the town. From 4.72 miles—that is, at Mindi—to 16 miles, which is 12 miles, following the present line, they propose to make the canal 150 feet wide on the bottom.

Senator KITTREDGE. And how wide at the surface of the water?

Mr. STEVENS. I think their slopes are 2 to 1; that is, for every foot in rise you would fall back 2 feet. With a 40-foot cutting you would fall back 80 feet on either side, or 160 feet on both sides. One hundred and sixty added to 150 gives you 310 at the surface of the 40-foot cutting.

That same proposition holds good right through, clear through the mileage to the Sosa locks, with varying width all the way through.

Senator KITTREDGE. Do you mean the Sosa locks?

Mr. STEVENS. I mean the Miraflores locks, clear through. For instance, commencing again from Limon, 4.7 miles, your width would be 500 feet. I am speaking now of the bottom; from 4.7 to 7 miles, 150 feet; from 7 miles to 16, 150 feet; from 16 miles to 17 miles, 200 feet—I am dropping the decimals; from 17 to 23 miles, 150 feet; from 23 to 24 miles, 150 feet; from 24 to 25 miles, 200 feet; from 25 to 27 miles, 150 feet; from 27 to 31 miles, 200 feet; from 31 to 32 miles, 200 feet.

Senator KITTREDGE. Let me ask you: You have now reached the Culebra cut?

Mr. STEVENS. No, sir. We will reach the Culebra cut proper at Obispo, at 31. Did I get that far? Yes. From 31 to 44 miles, 200 feet. That includes the entire Culebra cut, and through nearly to La Boca, 200 feet; that is only a short fraction. From 44 to 45 miles, 300 feet; from 45.37 to 45.50 miles, 300 feet; from 45.50 to 45.87 miles, 350 feet; thence to the Pacific terminus, 300 feet. The aggregate would be, then, for the sea-level canal, that you would have for 4.72 miles a width of 500 feet.

Senator GORMAN. On the surface or on the bottom?

Mr. STEVENS. On the bottom. You would have 3.9 miles 300 feet wide. You would have 18.8 miles 200 feet wide. You would have 21 miles 150 feet wide, with a total length of the canal of 49.3 miles. It is hard to carry this in your head.

With a lock canal you will have 19.5 miles 1,000 feet wide or more. You will have 3.8 miles 800 feet wide. You will have 12.7 miles 500 feet wide; 6.8 miles 300 feet wide; 5.3 miles 200 feet wide; with a total length of 49.7 miles.

Senator KITTREDGE. Did the first figures give the width of the canal at the surface of the water or at the bottom?

Mr. STEVENS. At the base of the excavation. At the bottom of the canal.

Senator KITTREDGE. What were the last figures? They referred to the surface of the water, did they not?

Mr. STEVENS. The last ones that I read?

Senator KITTREDGE. Yes.

Mr. STEVENS. Those were the widths of the lock canal.

Senator KITTREDGE. They refer to the surface of the water, do they not?

Senator DRYDEN. They refer to the bottom.

Mr. STEVENS. They refer to the bottom. When I say a thousand feet or more, that means through the lakes. It might be 2 miles wide, you know.

Senator HOPKINS. With this canal, how much deeper do you go than with the lock canal?

Mr. STEVENS. With the lock canal, as proposed by the minority, you go the difference between plus 40 and minus 40, which is 80 feet; or plus 45 and minus 40, which is 85 feet.

Senator SIMMONS. The whole length of the canal, or only part?

Mr. STEVENS. From the Gatun dam to the Pedro Miguel lock, under the minority report; at the sea level from the outer harbor line to Gatun on the north line, and from the outer line to Sosa on the south end.



Senator GORMAN. The difference being whether you cut off that point or not?

Mr. STEVENS. That is all the difference. The minority made a swing out there to avoid a lot of expensive rock, which they do not get here.

Senator KITTREDGE. What was the reason of the majority in going through that point; did they have any reason that you know of?

Mr. STEVENS. Nothing except to get an absolutely straight line.

Senator DRYDEN. In the sea-level project they propose to erect tidal dams and one or two tidal locks?

Mr. STEVENS. Yes, sir.

Senator DRYDEN. How do they get the boats over those?

Mr. STEVENS. By the regular locks; just like any lock.

Senator DRYDEN. So that they would not avoid the necessity of lifting the boats up?

Mr. STEVENS. There would be times when you would lift them, and times when you would drop them.

Senator KITTREDGE. And times when they would run through on the tide?

Mr. STEVENS. Yes. You would lock, but not nearly as much as you would to lift the boat clear up.

Senator KITTREDGE. There would be times when there would be no locks either way?

Mr. STEVENS. Undoubtedly; yes, sir.

Senator HOPKINS. You estimated the length of time that it would take to go through the locks on the lock canal; how long a time do you estimate that it will take under the sea-level canal to go through the locks?

Mr. STEVENS. To go through the locks? I should not suppose that it would take over fifteen or twenty minutes. I understand that at the Poe lock on the St. Marys Canal they put ships through in nine minutes.

Senator MORGAN. Is that the British lock?

Mr. STEVENS. No, sir; the Poe lock is the American lock. I can not think of anything more through this stretch of the canal up to Gamboa to call your attention to, with the exception of a mass of detail that is rather hard for you to carry in mind, concerning the diverging channels. It is proposed to dig new beds for the larger and more important streams all the way, parallel with the canal, to keep them out of the canal proper; to make a new channel for them on either side of the dikes. For instance, all these streams that come in here [indicating on the map]. Still farther back here are all those strong influent streams that come in here [indicating on the map]. They take these down through these channels, dig them from one to the other, enlarge the old French channels, making a diversion of their waters, and eventually discharge them away across the country here, into Admiralty Bay, I think they call it.

Senator HOPKINS. They make new beds for all the rivers?

Mr. STEVENS. All the large ones; yes, sir.

Senator GORMAN. Is that estimated for in this minority report?

Mr. STEVENS. There is an estimate for it.

Senator GORMAN. Is it included in their total?

Mr. STEVENS. Yes, sir.

Senator HOPKINS. This is the plan of the majority, not of the minority.

Mr. STEVENS. This is the plan of the majority.

Senator HOPKINS. How do you dispose of the Chagres River under the sea-level plan?

Senator KITTREDGE. He is coming to that after a little while, I think, Senator.

Mr. STEVENS. They dispose of that by bringing it through regulating sluices in their high dam. I think they have stated it in their report better than I can. As far as the regulation of the Chagres River at that point is concerned, they undertake to put up this very high dam. You will find it on page 26 of their report.

Senator DRYDEN. At what point did they put that dam?

Mr. STEVENS. About one-third above the prism of the canal. Right there between those mountains. I believe the dam is to be about 180 feet high, or something like that, and half a mile long.

Senator HOPKINS. What is to be its width?

Mr. STEVENS. Its thickness?

Senator HOPKINS. Yes; its thickness.

Mr. STEVENS. My recollection is that they propose a masonry dam. By holding back this water, you understand, they will be able theoretically to let it come whenever they want to, and in such quantities as they want—that is, the floods are never so continuous that they would fill this dam, or anywhere near it, so that there is no danger of the water going over the top. In other words, they hold back this reservoir until this flood is over, and then, by opening this spillway or the regulation gates, they would let just as much or just as little come through as they please.

Senator MORGAN. If I understand it, the canal prism is to take care of all that water?

Mr. STEVENS. Yes; that is my understanding.

Senator MORGAN. And the diversion that is mentioned is to take care of the water of the smaller streams?

Mr. STEVENS. Yes, sir. To quote from the third paragraph, on page 26 of the report of the majority of the Board:

\* \* \* So that if 15,000 cubic feet of flood water per second from the Chagres be permitted to enter the canal prism at Gamboa, the resulting current, if the entire quantity admitted flows in one direction, will be but  $1\frac{1}{2}$  miles per hour, a negligible quantity, so far as its effects upon navigation are concerned; but the plans for a sea-level canal contemplate a provision that would permit the discharge through the canal prism and regulating sluices near the tidal lock on the Pacific side of approximately one-third of this Gamboa discharge.

In other words, they intend to use all of that, all this flood water, in reduced quantities, so that it will not affect the navigation of the canal. It is provided for in this way: There is no obstruction going out to the ocean, and that is why they put a spillway over there, that I will explain.

Senator KITTREDGE. That is, a spillway in connection with the tidal lock at Miraflores?

Mr. STEVENS. Yes; near Miraflores. This diversion here that I outlined on the map is continued through on the east side. On the west side there are some very large streams that come in, the Trinidad, I think, being the largest, that they intend to bring right into the Chagres River, and by a system of dikes to keep them from going

to the canal. I have not gone into that matter thoroughly enough to know the exact details, but they are explained in the report.

The other streams above it, on the west side, clear up through the crest of the mountains, they propose to take care of in various ways. As to the more important of them they intend to build dams, or plan to build dams, and let the resulting basins that are formed by these dams fill up to a certain point, and then they go backward. In other words, they run water up hill. The watersheds are right here [indicating on map].

Senator MORGAN. You run the water across the watersheds?

Mr. STEVENS. Exactly. There are several of those that I found in the report that are back in the jungle, at points that I have never visited. We have no particular surveys, no borings at all to indicate their size, character, or foundations, or anything of the sort.

Senator KITTREDGE. Are there any records in your office on the subject?

Mr. STEVENS. Not that I am aware of. The only record that I know of is a contour map from which an engineer can make a rough estimate of the size of the dam.

Senator MORGAN. Do they furnish to the Government here in their report a detailed statement of what these various works would be outside of the canal?

Mr. STEVENS. I understand they do. Those are the plans that we have not got.

Senator MORGAN. Yes.

Mr. STEVENS. That same scheme of taking care of influent water holds all the way through the canal. I know in the estimates there are \$3,500,000—I think that is the estimate; the record will correct me if I am wrong.

Senator HOPKINS. For taking care of the various rivers?

Mr. STEVENS. Yes, sir; including these dams and spillways. I would not attempt to guarantee that estimate. I would not care to express an opinion, further than to say that it would seem to me, in the absence of accurate data for borings, and special surveys, that there is a great deal of guesswork in it. In other words, I think, with all due respect to the men who made it, that it is an assumption that I do not believe their data warrants. To put it plainly, to my mind going back there and establishing dams means roads, sanitation, policing, and things like that. That estimate is just as liable to be three times as much, as it is to be what they have got it, because we are going into the unknown.

Senator MORGAN. If the regulation works on either of these important streams running into the Chagres should fail, that would mean disaster?

Mr. STEVENS. If the Gamboa dam should fail, the canal would be wrecked in ten minutes.

Senator MORGAN. How about these small streams, the Trinidad and so on?

Mr. STEVENS. They do not interrupt navigation for the time being. They might bring down an immense amount of detritus.

Senator MORGAN. This system would be built, under the care of the management of the canal, including the number of outlets and dams that are intended to regulate these waters, to protect the canal against the influent waters?

Mr. STEVENS. Yes, sir.

Senator MORGAN. The care of these works would be in the hands of the employees—

Mr. STEVENS. I think I see the idea that is in your mind, Senator. Of course it is an axiom in the maintenance of a railway that you want to concentrate everything you can under the eye of the man who is responsible for the maintenance. In other words, we say that a section man never sees anything outside of the end of a tie. That is unfortunately correct. In other words, if we have a bad washout, through something just outside of the line that diverted the water to it, it is not reported, because the man in immediate charge does not understand the importance of it.

Senator HOPKINS. The breaking away of the dam of the Chagres River would destroy the canal instantly?

Mr. STEVENS. Yes, sir. It would put it out of commission, without question. You can imagine what the effect would be of letting 150 feet of water, less than a quarter of a mile or a third of a mile away, right into the canal; although, of course, it is contemplated to build such a dam as never would, by any possibility, let that happen.

Senator KITTREDGE. What are the conditions for the construction of a dam in that vicinity?

Mr. STEVENS. They are very good. At 50 feet you have solid rock, and also on the wings.

Senator KITTREDGE. What is the character of the rock at that point?

Mr. STEVENS. It is a trap rock; a fine rock foundation. It is all right.

Senator KITTREDGE. Is there any more danger, if a dam were constructed at that point, of its breaking away than there would be with any dam under similar circumstances?

Mr. STEVENS. No, sir; I do not think so, outside of the question of earthquakes.

Senator KITTREDGE. Do you know of any earthquakes having occurred in that country?

Mr. STEVENS. I have not got any record of any earthquakes. We have an earthquake machine at Ancon—that is, at Panama—but it has only been running for a few months.

Senator KITTREDGE. Did you ever see the straight arch in the old church at Panama?

Mr. STEVENS. Yes, sir.

Senator KITTREDGE. Do you know how long that has been there?

Mr. STEVENS. I suppose two hundred years or more.

Senator KITTREDGE. Any serious earthquake would have destroyed that, would it not?

Mr. STEVENS. Well, that is a mystery to me—how it stands. I have heard the explanation, but it does not satisfy my mind. I can not explain it from an engineering standpoint—why it does stand.

Senator KITTREDGE. Is not that quite a convincing argument that earthquakes never happen at Panama?

Mr. STEVENS. Decidedly, to my mind. I can not conceive of an earthquake of any severity at all but what would destroy that arch.

Senator KITTREDGE. So that there is not any danger of the dam at Gamboa being destroyed by an earthquake?

Mr. STEVENS. I would not say that there was no danger, but I suppose there is no place in the world but what is liable to have an earthquake. That is one reason why I made the statement this morning that I preferred an earthen dam to a masonry dam anywhere, because I do not think an immense earthen dam could be destroyed by an earthquake.

Senator DRYDEN. I should like to get your views as to the relative advantages of these two systems of canals to commerce, as to expense and time in passing through and also as to war vessels.

Senator KITTREDGE. Would it not be better to let him go ahead on this line until he gets through?

Senator DRYDEN. I thought he had come to a point where he could stop.

Senator KITTREDGE. I do not think he has finished.

Senator DRYDEN. Before the conclusion of his statement I would like to ask that.

The CHAIRMAN. Go right along and get through with this branch of the subject. I think that would be better.

Mr. STEVENS. I do not know of any other point that I can bring out.

The CHAIRMAN. You have only got about two-thirds of the way across as yet.

Mr. STEVENS. We have got up to Gamboa.

The CHAIRMAN. Yes.

Mr. STEVENS. That is at mile 31, as I recollect. From this point to the Culebra cut, so called—that is, through the summit cut—they propose the same width as the minority people—200 feet.

The CHAIRMAN. That is, at the bottom of the canal?

Mr. STEVENS. Yes, sir. In that respect the passage through that 4 or 5 miles, or 8 miles, rather, would be the same, with the exception that for a certain distance from Obispo to up near Las Cascadas, the minority people make it 300; and for a certain distance at the west end, near Paraiso, they made it 300. In other words, they shorten their 200-foot stretch by about 3 miles.

We come through Las Cascadas, Emperador, and Pedro Miguel, where we leave the heavy cutting between there and Miraflores, and we drop down to the tidal flats. In other words, extreme high tides run up these streams about to Miraflores.

Here, as I explained this morning, at Miraflores, or in that immediate vicinity, the majority report takes an entirely new location, straight from Miraflores, passes between Ancon and Sosa Hills, near La Boca, running directly out to sea, and placing their tidal locks at Sosa.

Senator KITTREDGE. No; at Miraflores, is it not?

Mr. STEVENS. At Sosa.

Senator KITTREDGE. In the majority report?

Mr. STEVENS. Yes, sir.

Senator KITTREDGE. Maybe I misunderstood it. I understood that their tidal lock was at Miraflores.

Mr. STEVENS. I have talked so much about locks that maybe I have got mixed up about it.

Senator KITTREDGE. I think you will find that they place their tidal lock at Miraflores.

Mr. STEVENS. I will read from page 45, paragraph 5, of the majority report:

The canal continues in a straight line through the swamps to and through the saddle between Ancon and Sosa Hills, where the tidal lock is to be placed, and thence to deep water off the Isle Flamenco. From Miraflores to the lock the canal will be leveed so as to prevent the tidal flow from entering it save through Corozal sluices.

The French plan required a tidal lock at Miraflores, some 5 miles from the bay shore, whereas in the new location it will be in the low Ancon-Sosa saddle, thus bringing it almost to the margin of the shore and avoiding the long approach channel wherein tidal currents might exist if the locks for their control were at Miraflores, far inland.

Senator MORGAN. What would be about the length of that embankment?

Mr. STEVENS. Through here [indicating on map]?

Senator MORGAN. Yes.

Mr. STEVENS. A third of a mile or a quarter of a mile.

In regard to the last part of that quotation, it is held by some authorities that in a narrow channel, such as we would have here, comparatively narrow, that the difference between high and low tide is so great, being 23 feet at extreme tide, that the incoming tide would produce current, making it difficult to navigate. That is purely theoretical.

Senator KITTREDGE. That is the reason they put the tidal lock there?

Mr. STEVENS. Yes.

Senator KITTREDGE. At Sosa, instead of at Miraflores?

Mr. STEVENS. Yes, sir. I should be inclined to doubt it, but my opinion probably is not of great value on that point.

I had borings made probably every thousand feet, straight through this line, and a lot of borings all through here [indicating on map], and at this point here, where you see these fine lines [indicating], there is quite a rise of ground; I think the summit is 40 to 50 feet above the general surface of the swamp. That is rock, and there would be heavy rock cutting through there, where they propose to go. On account of the location of the rock at that point, they put in their overflow works, their regulation works. there, that were supposed to take about one-third of the overflow that comes from the Gamboa dam. Instead of letting it all go that way [indicating on map], they let part of it through here [indicating] by these artificial regulation works.

Senator MORGAN. If the gentlemen are through asking specific questions, I should like to put a general question to you. If you build a lock canal at an elevation of 85 feet, with a safe dam at Gatun, safe locks at the same location, and safe locks all the way through to the Panama Bay; and if, on the other hand, you build the canal recommended by the majority, a sea-level canal, with safe sea-gates at Sosa, so that either canal should be made in the best way in which it can be made—shipowners and insurance officers are deeply interested in the safety of the navigation of a ship in the sea-level canal, for instance, as compared with the lock canal which I have just been trying to describe—what dangers are to be apprehended, reasonably, in the navigation of the lock canal, that are greater in such a case, as I supposed, than the dangers of navigating a sea-level canal of the same sort?

Mr. STEVENS. I suppose there is no doubt but what there is always danger in passing a ship through a lock, and the greater the number of the locks the more danger there is. That would be the disadvantage, if it could be so called, of the lock canal. With a sea-level canal I should imagine the greatest danger would exist in the comparatively narrow crooked channel, the danger of meeting passing ships, and the danger of grounding, and the danger of heavy masses like an 18,000-ton or a 20,000-ton ship running into the wall. Even at very slow speed such a vessel would have a tremendous momentum.

Senator MORGAN. Comparing the two together, which do you think would be the least dangerous for ships?

Mr. STEVENS. As you have discovered, my faith is pinned to a lock canal. Therefore I would think the lock canal would be the safer.

Senator MORGAN. That is your opinion?

Mr. STEVENS. That is my opinion; yes.

Senator MORGAN. Your opinion is that of the two canals proposed, both of them constructed as perfectly as art can provide, the danger of the navigation of a sea-level canal is greater than that of a lock canal?

Mr. STEVENS. A sea-level canal constructed of the dimensions that are proposed here?

Senator MORGAN. That is what I mean. I mean the propositions that are before the committee.

Mr. STEVENS. Yes, sir. There is no doubt in the wide world that if you had a very wide canal, say 1,000 feet all the way through, at sea level—in other words, what has been called a strait—that would be ideal. There is no reason to believe, however, that it would not be beyond the finances of even the United States.

Senator MORGAN. And even that great broad strait that Mr. Bunau-Varilla speaks of might not let enough water through from the Pacific Ocean to submerge the islands in the Caribbean Sea?

Mr. STEVENS. I do not think it would do that; no, sir.

Senator MORGAN. You think not?

Mr. STEVENS. That is all theory, you know. I could not say.

Senator HOPKINS. You have said that you prefer the lock canal. I wish you would give in detail your reasons for that opinion, regardless of anything in either the majority or the minority report.

Senator MORGAN. Has he not already given them in detail?

Mr. STEVENS. I will give them very quickly, in general: I think for a less price you are getting a superior article.

Senator HOPKINS. What do you mean by a superior article?

Mr. STEVENS. A better canal.

Senator HOPKINS. In what respects is it better?

Mr. STEVENS. In respect to time of navigation; in respect to safety; in respect to the ease with which in the future, if you require it, it can be so quickly and cheaply enlarged. To illustrate: Supposing that the canal was built, as I notice the minority board have reported in favor of, 45 feet throughout, excepting in the locks, where it would be 40 feet. I presume the extra 5 feet is to avoid dredging continually. Suppose it should be decided that 45 feet or 40 feet, as the case may be, did not provide water enough. What would be the process? We have a dam built that practically is strong enough to carry water clear to the top of it without any danger whatever.

All you have to do to deepen 36 miles of that canal is simply to raise the bottom of your sluice gates 5 feet. You have deepened the entire lake, and consequently the canal, for 36 miles, without any dredging or other work than leveling to get the 50 feet through. It is only necessary to dredge the two approaches, the sea-level approaches, about 12 miles.

Senator GORMAN. You would raise your locks?

Mr. STEVENS. Yes; you would have to rebuild your locks. The locks would undoubtedly have to be rebuilt anyway when that time came.

Senator KITTREDGE. Why would they have to be rebuilt anyway?

Mr. STEVENS. If you needed a larger capacity than they have recommended, 95 by 900 feet.

Senator KITTREDGE. Is there anything in the construction of them that would require rebuilding?

Mr. STEVENS. Oh, no; not until their capacity got to be too small.

Senator GORMAN. If you increase the depth of water, you would have to increase the height of your lock?

Mr. STEVENS. A little; yes, sir. What they really would do instead of rebuilding the existing locks would be to build new locks alongside—of larger dimensions.

Senator DRYDEN. Let me repeat the question which I put to you some time ago: Eliminating the element of danger which you have referred to just now, what would be the relative advantages to commerce and to the Government in respect to its vessels, as to expense and time, of these two systems, for the boats passing through this canal?

Mr. STEVENS. The comparison as to time, Senator, is hard to demonstrate. I think the two reports have gone into that more or less. I am not a sailor or a ship captain, and of course all my ideas are gotten from observation and not by actual experience. But we do know this: That in the Soo Canal, which is the longest example of a canal in the world—something like 90 miles, I believe—no two ships are allowed to pass at speed. They have passing points established here and there, where they have to drop in to one side, and are side-tracked. That is done whenever two ships meet. They have both to come down to a very slow speed, and one of them has to be tied up at the shore, and to lie there until the other ship has passed, just as is done when two trains pass each other on a single-track railway.

That same condition of operation would undoubtedly obtain in the Panama Canal on the sea-level proposition, with the widths indicated here. In other words, it would be absolutely unsafe for two ships to pass otherwise, with a width of 150 feet, which you must figure as the width at the bottom.

Senator MORGAN. Both of them being in motion?

Mr. STEVENS. Both of them being in motion; and you would have to have these passing places rigged up with small docks, with snubbing posts, and one of the ships would absolutely have to tie up in order to be safe. A ship might go through and meet with no other ship, or it might meet six or eight. You can not tell anything about that. Whenever they met there would be that delay. In addition to that, with a narrow channel and a comparatively crooked channel, their speed must be slow. I do not think any of us comprehends the



tremendous impact of one of these big vessels weighing so many thousand tons, even when it is moving only a mile an hour, if it strikes any obstacle. And the larger the ships the greater the danger.

In other words, with one of these large ships, if the pilot lost control of her for an instant, she would go slap against the side of the canal, whether it was a sea-level canal or any other kind of a canal; and the narrower that channel is the greater is the danger. Then, too, the danger with a sea-level canal at that depth, and with a narrow channel, is that at a number of points there are small streams coming in from this diversion channel. With that cut through there, 40 feet below the level, it is the lowest point in the country, and everything must drain into it. It is the sewer of the country. These small streams will be bound to bring in more or less mud, and will form little bars.

When you take water that carries an amount of soil—in other words, muddy water, depending on the velocity and the saturation, or the amount of soil in the water—the water carries this detritus along, and whenever that water stops dead slow, there is only one thing for the sediment to do, and that is to deposit; and it deposits more or less all the time, in proportion to the velocity of the current. That is what has caused the estuary of the Mississippi and these other rivers, and that is what has caused the bar at the mouth of the Mississippi. There are numberless little streams of this kind that will come into the canal at all points along the line, with the narrow restricted channel of 200 feet, or 150 feet, for miles, in my opinion, and there will constantly be danger of these little points, that the utmost vigilance could not protect. They would have to be continually cleaned out. Sooner or later ships would go aground, which, of course, would be disastrous.

Senator MORGAN. Anticipating that Congress may come to the conclusion, corresponding to the recommendations of Professor Morrison, first, that Bohio is the key of the lock canal in the Isthmus, and, secondly, that it is practicable to build an earthen dam with a stone core at Bohio, and in order to meet that view of the subject (which it is entirely possible, if not probable, will be presented to Congress) I wish to ask you whether you have made examinations of the borings that have been made at Bohio?

Mr. STEVENS. Yes, sir; I have looked into them.

Senator MORGAN. Are the conditions there such as that you would advise the building of an earth dam, say, on the same principles that the minority of the committee advise the building of an earth dam at Gatun? Do you think an earth dam could be as safely built at Bohio as it could be at Gatun?

Mr. STEVENS. I do not; no, sir.

Senator MORGAN. In order to build a dam at Bohio of that character, would it be necessary to excavate below 128 feet, where the Isthmian Canal Commission of 1901 found boulders that they mistook for solid bottom? Would it be necessary to go below that? If I understood Mr. Wallace's statement correctly, having bored through these boulders, he found rotted wood and other material there of a character that would bear water, down to within a foot, or such a matter, of the bottom of the geological gulch. Would it not be necessary, with the statements that have been made by Mr. Wallace, or the

explorations that have been made by him, to take out all that material down to the bottom of that gulch, and replace it with other material?

Mr. STEVENS. Well, the material at Bohio, as demonstrated by the later borings—Mr. Wallace made all the borings—showed that instead of boulders they had solid rock. Then they went, instead of 128 feet, to a depth of 163 feet before they struck what they finally decided was solid rock. At different distances down from the surface all the way across they got a great deal of coarse gravel, water-bearing strata, without any clay at all, possibly 30 or 40 feet in thickness. Undoubtedly water will flow through that subterranean strata.

Senator MORGAN. They found wood under there, too, did they not?

Mr. STEVENS. I do not recall the wood.

Senator MORGAN. That is a fact.

Mr. STEVENS. That has escaped my memory, if I ever knew it.

As far as going down to the bottom and taking out and replacing that is concerned, that is a question that engineers are very strongly divided on. George Morrison—I presume you mean Professor Morrison?

Senator MORGAN. Yes.

Mr. STEVENS. I think his opinion was that the underflow there could be neglected.

Senator MORGAN. Yes.

Mr. STEVENS. That it would be safe to build a dam without going down there, I would not care to say. I should feel much safer if that underflow was cut off, if I were going to build a dam there.

Senator KITTREDGE. Where does that underflow go to after it passes Bohio?

Mr. STEVENS. It comes out again below, in the river.

Senator KITTREDGE. Whereabouts?

Mr. STEVENS. Nobody knows. You know that the Missouri River above South Dakota, away up there, carries more water than it does below.

Senator KITTREDGE. Yes.

Senator MORGAN. You found in the borings at Gatun, or the explorations that were made there, that in consequence of the slowing down of the currents coming down this geological gulch the heavier materials, such as boulders and coarse gravel and the like, had been deposited above Gatun, and that there this finer material, the sand, etc., and clay, had been deposited on the bottom, or near the bottom, at Gatun?

Mr. STEVENS. We found that difference in the material, and the only explanation that seemed reasonable to me is that one.

Senator MORGAN. Does not the building of an earth dam to hold back a great volume of water depend upon the compactness of the material at the bottom of that dam more than upon the compactness of the material up higher on the dam?

Mr. STEVENS. Why, of course the water has more effect in filtration through where the pressure is the greatest. Consequently the bottom should be more compact.

Senator MORGAN. So you found the advantage in favor of Gatun that was missing at Bohio?

Mr. STEVENS. Yes, sir.

Senator MORGAN. That is the situation?

Mr. STEVENS. Yes, sir.

Senator MORGAN. To say nothing of the wood, if the wood was there?

Mr. STEVENS. Yes.

Senator MORGAN. In what way was it that the Isthmian Canal Commission happened to make this mistake or oversight about having gone to the bottom in those borings?

Mr. STEVENS. I do not know, Senator. It was before my time, you know.

Senator MORGAN. Suppose they had not used diamond drills, would they be likely to cut through the bowlders and get to the bottom?

Mr. STEVENS. I think the diamond drill, bringing up a core, is the only reasonable way.

Senator MORGAN. They all said that they did not use diamond drills, but used what I call churn drills, although I do not know that I am correct about that. I will get you to describe to the committee, if you please, one of these water drills, or churn drills, and then the diamond drill, as to the manner of handling them, and the effect of them.

Mr. STEVENS. The ordinary water drill means simply a pipe, 2 inches in diameter, for the sake of illustration, that is driven down. Then a jet of water is pumped down or forced into that, and that loosens the material up. Then you place inside of that, to carry your water jet down, a smaller pipe. As the water loosens up the material in the larger pipe it is forced up through the annular space between the two pipes, and the smaller pipe gradually goes on down and you keep on driving the larger pipe down.

Senator MORGAN. In that way artesian wells are driven?

Mr. STEVENS. Yes. A diamond drill is a drill that is run by machinery and that goes down with an auger, you might call it, with the cutting surface formed of black carbon, called diamond, and that forces a core, cuts an annular section, and forces the inside right up, so that you get samples as you go down.

Senator MORGAN. You get samples at the various depths?

Mr. STEVENS. Yes, sir.

Senator MORGAN. The large bowlders would stop one of these water drills?

Mr. STEVENS. Yes, sir.

Senator MORGAN. It would not go through it?

Mr. STEVENS. No, sir. Of course if you made a careful examination you would go off a little distance and try again somewhere else.

Senator MORGAN. So that the real occasion of the mistake was the fact that they used water drills on the Bohio site instead of diamond drills?

Mr. STEVENS. Or else they did not drill holes enough. I could not say. If they had found a bowlder and they had gone off and drilled three or four more holes in different places they would have gotten by it.

Senator MORGAN. Your opinion is, then, that a dirt dam would be very difficult to construct, and not entirely reliable after it was built, if it was located at Bohio?

Mr. STEVENS. I do not know as the difficulty of construction would vary any at either place, but I feel this way, that I would not condemn an earth dam at Bohio, neither would I say that it is perfectly

safe. I would say that I would feel rather dubious as to the outcome, not because I think the dam would go out, but I would think, owing to this gravel—this percolating material below it—that you might lose a great deal of your water there.

Senator MORGAN. Some question has been alluded to, rather than stated precisely, in the majority report, and I believe also in the minority report, in regard to the preservation of a canal against efforts to destroy it with dynamite or any kind of explosives. Which of these canals would you think would be most liable to a successful assault in that direction?

Mr. STEVENS. You have brought up a point that I have given some thought to. Not being a military man, I do not suppose I am competent to express an opinion, but if you will allow me to wander on in my own way, I will give you my idea of it.

Senator MORGAN. That is what I want you to do.

Mr. STEVENS. I did not—and I use the word “did” advisedly—in my own mind favor putting any locks near the sea or any artificial works whatever. The plan that I carried in my mind when I said that I made an estimate of \$150,000,000 did not contemplate any dams at Sosa or any artificial works at all. I proposed about the same elevation—I think I said 80 feet—for the high-level canal, as is proposed in the minority report, and I proposed putting my entire lockage system at the south at Pedro Miguel and Miraflores there together, with this idea in view: That the locks at that point will be from  $8\frac{1}{2}$  to 9 miles—we will say 8 miles—in a straight line from the nearest point where a ship can lie, providing she reduced the fortifications in the outer harbor. In other words, she would come up to the mouth of the canal and could lie there, but she would have to throw a shell 8 or 9 miles before she could strike anything that she could damage.

The same condition prevails exactly on the north end, with the dams at Gatun. It is about 8 or 9 miles to where a hostile ship could lie, unless she came directly into the canal. She would not have anything to shoot at. My notion is that, with a small object like a lock lying at an unknown point—unless the enemy had absolutely correct charts—a ship would have pretty hard work to do any damage at that distance.

Then, my idea at the south end of not creating that lake was one that was touched upon this morning, not to make an artificial freshwater lake right at the doors of Panama on account of mosquitoes and fever breeding.

Senator HOPKINS. How would you get from the sea up to Miraflores?

Mr. STEVENS. By dredging a channel; bringing the sea level to Miraflores, just the same as the minority proposes to bring it, at the other end, to Gatun.

Senator KITTREDGE. They are agreed, substantially, up to Gatun, are they not?

Mr. STEVENS. Yes, sir.

Senator HOPKINS. You would make your rise of 85 feet instead of 30 there?

Mr. STEVENS. Yes; I would make my entire rise there.

Senator MORGAN. We have been speaking of an enemy who might invade from the outside with ships. Suppose Panama should get at

war with the United States, which she has a perfect right to do, if she wants to, what protection could we possibly have against their dynamiting our ships in that Culebra cut?

Mr. STEVENS. You would not have any, unless you policed it there so thoroughly that they could not get in there.

Senator MORGAN. There is nothing else that would prevent it, except the absolute power and control over it in a military sense?

Mr. STEVENS. That is my opinion exactly.

To go on a little further about the way these two canals could be destroyed in case of war, of course, given a sufficient amount of high explosives and time and a few determined men, you can blow locks so as to ruin them. So you can the Gamboa dam; so you can the spillways. I can go to several places on any canal, a sea-level canal particularly, because it is deeper, and the slopes are very much higher, with a few thousand pounds of high explosives and a few determined men to help me, and I can place any canal there out of service in a very short time. I would simply put that high explosive against the face of those bluffs and touch it off and go away. I could shoot hundreds of thousands of pounds right in there where there are no artificial works at all, simply the slopes of the mountain.

Senator MORGAN. That means that if Panama should be at war with the United States, we would be absolutely in her power?

Mr. STEVENS. We would have to protect our canal; there is no question about that.

My reason for being in favor of putting these artificial works inland I have explained. It seemed clear to me that that was the safest way. In other words, if a man goes out in a blizzard his hands are safer in his pockets than they are outside.

Senator MORGAN. That brings me back to my original proposition, Senator Dryden.

Senator DRYDEN. I have always had a pretty strong leaning to that proposition.

Mr. STEVENS. I have ascertained that the minority figures—I merely give this as hearsay, although I have no doubt that it is correct—the figures which they have made and their analysis show that the proposition to put the locks at Sosa and the dam there is some \$6,000,000 cheaper than the proposition to put the locks inland. Six million dollars is a good deal of money, and I do not know whether the military or sanitary necessities would justify the expenditure at Panama of that sum.

Senator DRYDEN. Have you made a calculation of the cost and the length of time that it would take to construct a sea-level canal?

Mr. STEVENS. No, sir; I have not.

Senator DRYDEN. I have not read the majority report, and therefore I do not know whether they stated an estimate.

Mr. STEVENS. I think they say about fifteen years.

Senator DRYDEN. And at what cost?

Senator KITTREDGE. Twelve or thirteen years, they say.

Mr. STEVENS. Yes.

Senator SIMMONS. Do they make any estimate of the cost?

Mr. STEVENS. Two hundred and forty-seven million dollars.

Senator KITTREDGE. Do you prefer a lock canal with an elevation of 85 feet to a lock canal with an elevation of 60 feet?

Mr. STEVENS. Why, as between the difference in cost, as I recall—I can not give you that cost now—I prefer the 85 feet.

Senator KITTREDGE. Why?

Mr. STEVENS. Simply because you have got so much more deep, navigation that your canal can be navigated a little quicker on account, and that it can be so readily enlarged.

Senator KITTREDGE. Why not increase the elevation?

Mr. STEVENS. Above 60 feet?

Senator KITTREDGE. Above 85.

Mr. STEVENS. Well, of course there is a limit that you do not care to go above in anything. I would be in favor of any lock canal rather than a sea-level canal, to be frank with you. I do not mean that I would go up to 150 feet or 200 feet, but I mean any elevation up practically to 85 or 90 feet.

Senator HOPKINS. The 85-foot elevation that you have is one protection against the overflow of the river there, is it not, at Gamboa?

Mr. STEVENS. Yes, sir. Of course with anything below 80 or 85 feet the problem of the regulation of the overflow from the Chagres has got to be met again—

Senator HOPKINS. Yes.

Mr. STEVENS (continuing). By dams at Gamboa. Going up to 80 or 85 feet you, in my opinion, eliminate that and settle what is the great engineering proposition. That is the reason for going to that elevation.

Senator HOPKINS. But at 60 feet you would not eliminate that?

Mr. STEVENS. At that height it would be necessary to build the Gamboa dam, in my opinion.

Senator HOPKINS. That was the impression that I gathered from your discussion of that matter before the recess.

Mr. STEVENS. You see, with the elevation of 60 feet you would only throw 10 feet of water through the Gamboa gap.

Senator HOPKINS. Yes.

Mr. STEVENS. In other words, that would be very near the edge of the dead water, and then, undoubtedly, these heavy currents coming down there would make navigation—well, it might not destroy it, but it would make navigation through that section of the canal difficult while they were coming in.

Senator HOPKINS. Yes.

Mr. STEVENS. I regard the solution of the engineering difficulties in building the Panama Canal to be the control of the Chagres River.

Senator HOPKINS. Yes.

Mr. STEVENS. There are grave questions to be met, of course.

Senator HOPKINS. But that is the question?

Mr. STEVENS. To my mind, yes.

Senator HOPKINS. And the most feasible way of doing that is by the lock canal with an 85-foot elevation?

Mr. STEVENS. That is my candid belief.

The first time I went over the canal, you might say—the second time I ever went across the Isthmus—of course I had in mind the proposition that had been advanced, largely by the old Commission of 1901 and 1902. I could see the force of the argument very readily about taking care of the Chagres River. I had understood from various writings that Bohio was the lowest point in the valley where

war with the United States, which she has a perfect right to do, if she wants to, what protection could we possibly have against their dynamiting our ships in that Culebra cut?

Mr. STEVENS. You would not have any, unless you policed it there so thoroughly that they could not get in there.

Senator MORGAN. There is nothing else that would prevent it, except the absolute power and control over it in a military sense?

Mr. STEVENS. That is my opinion exactly.

To go on a little further about the way these two canals could be destroyed in case of war, of course, given a sufficient amount of high explosives and time and a few determined men, you can blow locks so as to ruin them. So you can the Gamboa dam; so you can the spillways. I can go to several places on any canal, a sea-level canal particularly, because it is deeper, and the slopes are very much higher, with a few thousand pounds of high explosives and a few determined men to help me, and I can place any canal there out of service in a very short time. I would simply put that high explosive against the face of those bluffs and touch it off and go away. I could shoot hundreds of thousands of pounds right in there where there are no artificial works at all, simply the slopes of the mountain.

Senator MORGAN. That means that if Panama should be at war with the United States, we would be absolutely in her power?

Mr. STEVENS. We would have to protect our canal; there is no question about that.

My reason for being in favor of putting these artificial works inland I have explained. It seemed clear to me that that was the safest way. In other words, if a man goes out in a blizzard his hands are safer in his pockets than they are outside.

Senator MORGAN. That brings me back to my original proposition, Senator Dryden.

Senator DRYDEN. I have always had a pretty strong leaning to that proposition.

Mr. STEVENS. I have ascertained that the minority figures—I merely give this as hearsay, although I have no doubt that it is correct—the figures which they have made and their analysis show that the proposition to put the locks at Sosa and the dam there is some \$6,000,000 cheaper than the proposition to put the locks inland. Six million dollars is a good deal of money, and I do not know whether the military or sanitary necessities would justify the expenditure at Panama of that sum.

Senator DRYDEN. Have you made a calculation of the cost and the length of time that it would take to construct a sea-level canal?

Mr. STEVENS. No, sir; I have not.

Senator DRYDEN. I have not read the majority report, and therefore I do not know whether they stated an estimate.

Mr. STEVENS. I think they say about fifteen years.

Senator DRYDEN. And at what cost?

Senator KITTREDGE. Twelve or thirteen years, they say.

Mr. STEVENS. Yes.

Senator SIMMONS. Do they make any estimate of the cost?

Mr. STEVENS. Two hundred and forty-seven million dollars.

Senator KITTREDGE. Do you prefer a lock canal with an elevation of 85 feet to a lock canal with an elevation of 60 feet?

Mr. STEVENS. Why, as between the difference in cost, as I recall it—I can not give you that cost now—I prefer the 85 feet.

Senator KITTREDGE. Why?

Mr. STEVENS. Simply because you have got so much more deep, wide navigation that your canal can be navigated a little quicker on that account, and that it can be so readily enlarged.

Senator KITTREDGE. Why not increase the elevation?

Mr. STEVENS. Above 60 feet?

Senator KITTREDGE. Above 85.

Mr. STEVENS. Well, of course there is a limit that you do not care to go above in anything. I would be in favor of any lock canal rather than a sea-level canal, to be frank with you. I do not mean that I would go up to 150 feet or 200 feet, but I mean any elevation up practically to 85 or 90 feet.

Senator HOPKINS. The 85-foot elevation that you have is one protection against the overflow of the river there, is it not, at Gamboa?

Mr. STEVENS. Yes, sir. Of course with anything below 80 or 85 feet the problem of the regulation of the overflow from the Chagres has got to be met again—

Senator HOPKINS. Yes.

Mr. STEVENS (continuing). By dams at Gamboa. Going up to 80 or 85 feet you, in my opinion, eliminate that and settle what is the great engineering proposition. That is the reason for going to that elevation.

Senator HOPKINS. But at 60 feet you would not eliminate that?

Mr. STEVENS. At that height it would be necessary to build the Gamboa dam, in my opinion.

Senator HOPKINS. That was the impression that I gathered from your discussion of that matter before the recess.

Mr. STEVENS. You see, with the elevation of 60 feet you would only throw 10 feet of water through the Gamboa gap.

Senator HOPKINS. Yes.

Mr. STEVENS. In other words, that would be very near the edge of the dead water, and then, undoubtedly, these heavy currents coming down there would make navigation—well, it might not destroy it, but it would make navigation through that section of the canal difficult while they were coming in.

Senator HOPKINS. Yes.

Mr. STEVENS. I regard the solution of the engineering difficulties in building the Panama Canal to be the control of the Chagres River.

Senator HOPKINS. Yes.

Mr. STEVENS. There are grave questions to be met, of course.

Senator HOPKINS. But that is the question?

Mr. STEVENS. To my mind, yes.

Senator HOPKINS. And the most feasible way of doing that is by the lock canal with an 85-foot elevation?

Mr. STEVENS. That is my candid belief.

The first time I went over the canal, you might say—the second time I ever went across the Isthmus—of course I had in mind the proposition that had been advanced, largely by the old Commission of 1901 and 1902. I could see the force of the argument very readily about taking care of the Chagres River. I had understood from various writings that Bohio was the lowest point in the valley where



the dam could be built. The first thing that occurred to me was: Is it a fact or is it an assumption? And going down through there I noted the narrowness down here at Gatun. I immediately asked some of my assistants why they selected Bohio instead of Gamboa. They said the dam at Bohio was better than at Gatun. I found that there were no borings there, and that they did not know anything about it. I commenced to get ready to find out. About that time there came a request of the consulting board, which convened here the 1st of September. They cabled down instructions to go on with borings at Gatun—just what I was preparing to do—with the result that we have explained, that in the opinion of everyone, I think, Gatun proved to be the better site.

Senator KITTREDGE. What about the comparative expense of maintenance and operation?

Mr. STEVENS. That is gone into very thoroughly in the report. You can get a better idea from the report about that than I can give you.

Senator KITTREDGE. A comparison has been made in the majority report on the basis of a lock canal with 60-foot elevation.

Mr. STEVENS. Yes.

Senator KITTREDGE. But not with a canal with an elevation of 85 feet.

Mr. STEVENS. There would be very little difference. There are one or two discrepancies, however, in the majority report which I can not quite reconcile, which must be taken into consideration. You have got to consider the cost of operation—that is, your maintenance, your men to handle your points where ships pass, and your lighting and policing and everything, to which has to be added the interest on the cost of that canal. Now, \$100,000,000—\$107,000,000 on the face of the report—is the difference in cost, which, at 2 per cent, is something over \$2,000,000. That must be added to the maintenance of a sea-level canal as compared with the other, which I do not think their report brings out.

Senator MORGAN. Two million dollars a year?

Mr. STEVENS. Two million dollars a year. That is in addition to the fixed charge. Now, frankly, I do not believe that the sea-level estimate is correct, for several reasons. In the first place, while I am chief engineer of the Commission, I never yet have satisfied my own mind, or become satisfied as to what it is going to cost, even approximately, to take out the lower 40 feet of that canal through Culebra Cut.

Senator KITTREDGE. You are not talking of maintenance?

Mr. STEVENS. I am talking about construction.

Senator KITTREDGE. I was asking you about maintenance and operation.

Senator HOPKINS. Let him finish on this point.

Mr. STEVENS. This bears directly on maintenance and cost of operation, because it is the cause of some of these fixed charges. The Board reported that the cost of taking out the material from plus 10, which is 10 feet above the sea level, down to minus 40, which is 50 feet (40 feet of which, as this profile shows, and as we all know, is rock), \$1.25 a yard. Well, I do not know anywhere in the world where rock has been ever taken out under just those conditions—in

other words, under as hard conditions as these would be. I have not studied up any plan yet whereby, either as engineer or contractor, I would start to take it out. Of course it is possible that that estimate may be correct.

Senator KITTREDGE. That bears upon what you regard as an erroneous conclusion?

Mr. STEVENS. An erroneous estimate.

Senator KITTREDGE. An erroneous estimate of the majority of the Board, or the Board of Consulting Engineers, concerning the cost of construction?

Mr. STEVENS. I do not think the conclusion they have reached is justified.

Senator KITTREDGE. I understand.

Mr. STEVENS. In other words, shortly speaking, to my mind that prism below plus 10 particularly, or particularly below the sea level, might just as readily cost \$2.50 a yard as \$1.25 a yard, and as it amounts to 17,000,000 feet the total would be something like \$23,000,000 to be added to the cost of the sea-level canal.

Senator KITTREDGE. In that regard you differ with the Board of Consulting Engineers concerning the cost of construction?

Mr. STEVENS. I do not say that they possibly may not be right. Some way may be found to take it out for that money.

Senator KITTREDGE. I was asking you about the difference in cost of maintenance and operation between a lock canal and a sea-level canal.

Mr. STEVENS. Exactly. And assuming that that addition was made to the cost of the sea-level canal, it means that the fixed charges of the sea-level canal would be much more than estimated here.

Senator KITTREDGE. I am leaving out of consideration at present the question of fixed charges—that is, the difference in cost of construction.

Mr. STEVENS. Yes.

Senator KITTREDGE. Suppose that they were the same; compare the difference in the cost of operation.

Mr. STEVENS. I think there would be very little difference in the cost of operation. On the one hand, you would have your locks to handle vessels through, and you would have the maintenance of your power plant. Your lighting would be practically the same, comparing one canal with the other. In the case of the sea-level canal you would have the different passing points along the line, with men stationed there to handle the ships, to see that they obey the rules, and so on. In either case you would have trained crews and pilots to take the ships through the canal. I can not see that there would be a great difference in the cost of operation.

Senator HOPKINS. Aside from the fixed charges?

Mr. STEVENS. Aside from the fixed charges. My idea is that the sea-level canal would be more costly to maintain, because, as I have explained, on account of these smaller streams coming in it would be necessary to maintain a number of dredges continually to keep the channel at a proper depth and width. It might not be necessary, but there is a contingency that must be contemplated.

Both boards have gone into the question more thoroughly, of course, than I could. I have no disposition to dispute their figures.

Senator MORGAN. Mr. Stevens, is it to the advantage or disadvantage of that canal work that the eight-hour law should apply to it?

Mr. STEVENS. I am in favor of working more than eight hours. Yes; for the reason that I think we can do the work quicker and cheaper.

Senator MORGAN. Is it necessary, in your opinion, in order to make proper progress with that work that we should have access to any place in the world where good labor can be obtained, as, for instance, China?

Mr. STEVENS. Decidedly, in my opinion.

Senator MORGAN. Yes. You think we are doing the Government an injustice in excluding ourselves from the opportunities of employing Chinese workmen there?

Mr. STEVENS. I think so. I mentioned what is, in my opinion, the greatest engineering feature in regard to the construction of the canal, the control of the Chagres River. That is purely from an engineering standpoint. Now, the greatest business difficulty, if I may call it such, the greatest practical difficulty, outside of the engineering features, is the question of labor.

I do not think that I can say, or anybody can say, that Chinese labor is the best and that ours is the worst. I do say that there is better labor than the labor that we are so far using. At least, I think so. I think that I should be very remiss in my duty if I did not try to get the best possible labor for the work to be done.

The CHAIRMAN. Do you think it would be quite as well for those people down there at work, both black and white, if they worked ten hours instead of eight?

Mr. STEVENS. I think so; yes, sir. I gauge everybody by myself. I work from fourteen to eighteen hours. [Laughter.]

The CHAIRMAN. But the ordinary laborer probably would not want to go beyond ten hours. You think he would be as well off if he worked ten hours as if he worked eight?

Mr. STEVENS. I think he would be as well off, if not better.

Senator MORGAN. Do you prefer the plan of paying by the hour or by the day?

Mr. STEVENS. That is something that I have not given very close attention to, Senator. There is always this ghost in the background, that if we contract for that work, as I am decidedly in favor of doing—at least asking for intelligent bids—then comes up the question as to the other fellow, who practically carries out the work, the kind of labor that he wants, and the number of hours that he wants to work, and the way he wants to pay his men.

Senator MORGAN. You would leave that to him?

Mr. STEVENS. I should leave that to him, with authority to veto.

Senator HOPKINS. With certain limitations?

Mr. STEVENS. With certain limitations.

Senator DRYDEN. Of course, if it is done by contract, your idea is that the contractor should have the right to employ whatever labor is most advantageous, and to buy his material in any market where he can get the proper material at the lowest price?

Mr. STEVENS. I think you would get much more favorable bids if restrictions in that regard were shut off entirely.

Senator DRYDEN. There is no doubt about that.

Mr. STEVENS. No, sir.

Senator GORMAN. Mr. Stevens, I want to go back a moment to this dam. I understood you to say a moment ago that if the dam was constructed on the original plan at Bohio, if it should give way it would destroy the canal in a very short time?

Mr. STEVENS. At Gamboa.

Senator GORMAN. At Gamboa?

Mr. STEVENS. The one that shuts off the flood waters from the Chagres; yes, sir.

Senator GORMAN. That would destroy the canal?

Mr. STEVENS. It would throw it out of service until the dam could be rebuilt and the works replaced.

Senator GORMAN. What would be the effect if the dam there on the minority plan gave way?

Mr. STEVENS. The entire canal would go, 36 miles of it.

Senator GORMAN. It would?

Mr. STEVENS. Yes; the lake would disappear.

Senator DRYDEN. And if there should happen to be a vessel going through the canal at that time, it would destroy it, I suppose?

Mr. STEVENS. It would depend upon where it happened to be. It would go aground all right.

Senator GORMAN. I understood you to say that at this point here you were perfectly satisfied with the construction of an earthen dam?

Mr. STEVENS. Yes, sir.

Senator GORMAN. Without a masonry core, as I understood you?

Mr. STEVENS. Yes, sir.

Senator GORMAN. What is that based on—experience anywhere else in the world with such a dam under similar conditions or nearly similar conditions?

Mr. STEVENS. There are similar dams that the reports here call attention to that carry larger heads of water. I understand that there is one in Baltimore. I never have seen it and do not know anything about it. There are several irrigation dams in the West, in California and that country, that the report calls attention to, that are much higher and carry larger bodies of water. My deductions are drawn largely from the way such a dam would look if it was built; I do not think anybody comprehends what it means. It means a range of hills or a hill similar to the hill between two water courses. I can not imagine any possibility by which such a dam could be destroyed.

Senator GORMAN. In view of the fact that Mr. Linden Bates and Major Gillette both condemned that character of dam, and then that this board of foreign engineers, summoned by the President, and some of the American engineers—I have forgotten who they are; I do not find their names here—

Senator KITTREDGE. General Davis, Mr. Parsons, and Mr. Burr joined them.

Senator GORMAN. In discussing that question, and discussing the possibilities of giving way, they came to the conclusion, as they stated, that the importance of the work is so great that they would not risk a dam to control this river unless it was a masonry dam. In view of that fact, do you think it would be safe and wise for the Government to undertake an experiment of that sort without further and more careful examination?

Mr. STEVENS. Careful examination of what?

Senator GORMAN. Of the possibilities of its standing. Would you, in other words, in view of the dissent of all these very able men, agree with the minority of this engineer commission and in your own view undertake it?

Mr. STEVENS. Yes, sir.

Senator GORMAN. Only because of the difference in the cost?

Mr. STEVENS. No, sir; because I feel that a dam built in that way would be absolutely secure. There will be no question about it. Of course all of these propositions are merely men's opinions.

Senator GORMAN. That is true; but you would not hesitate to recommend it notwithstanding this dissent?

Mr. STEVENS. No, sir.

Senator GORMAN. Do you not think that a masonry dam there would be more secure, or one with a core of masonry through the center of the dam?

Mr. STEVENS. I do not see where it would add anything at all to the strength or safety of it. It seems to me when you get a thing that you feel in your own mind to be absolutely safe, when you have not a shadow of a doubt about it, that any additions you put on it are superfluous.

Senator GORMAN. Yes, if it is absolutely safe. Here I suggest that that is a very positive opinion or conviction that you have.

Mr. STEVENS. Well, I am a positive man.

Senator GORMAN. So I observe. That is the kind of man we want, I think.

Mr. STEVENS. There is no possibility of the water ever going over it.

Senator GORMAN. No.

Mr. STEVENS. There is no possibility of the water pushing it away.

Senator GORMAN. Or getting in it?

Mr. STEVENS. No, sir; and I do not see how anybody could go there and dig it away. When you come to think of it, you have to tunnel practically 375 feet, even at the top, to get a hole through it. Even in time of war you would have to lose control of that canal for a very long time to enable anybody to do that. The animals can not burrow through it, and the material will be of such a nature that the water can not percolate through it. I can not conceive how it can go.

Senator HOPKINS. At its base it is how wide?

Mr. STEVENS. Twenty-seven hundred feet.

Senator HOPKINS. In other words, you construct a mountain there?

Mr. STEVENS. That is it.

Senator MORGAN. You employ a great deal of cement in making the central works and the regulating works of the dam at Gatun?

Mr. STEVENS. Yes, sir.

Senator MORGAN. Is there any arrangement made by which this cement is to be inspected?

Mr. STEVENS. Oh, yes, sir; yes, sir. I test every invoice of cement we get. Every few sacks or barrels we make a thorough test.

Senator MORGAN. You test it in regard to the time of its hardening?

Mr. STEVENS. Yes, sir; and its strength after it is hardened.

Senator MORGAN. And the tensile strength?

Mr. STEVENS. Yes, sir.

Senator MORGAN. And the breaking strain?

Mr. STEVENS. Yes, sir.

Senator MORGAN. And so on?

Mr. STEVENS. Yes, sir.

Senator MORGAN. And so, when you make up your test, you feel absolutely certain that there is to be no trouble about the perishing or giving way of the cement?

Mr. STEVENS. Yes, sir.

Senator MORGAN. Does that make a stronger wall mixed with stone than a cut-stone wall?

Mr. STEVENS. A stronger wall?

Senator MORGAN. Yes.

Mr. STEVENS. I think it does, when it is well made.

Senator MORGAN. For the reason that it is continuous and has no joints in it?

Mr. STEVENS. Yes, sir. Of course in regard to the question of concrete, which is the one we have under discussion, the use of it is trebling almost every year. The French for a great many years have used concrete in very much larger proportions than any other engineers or any other constructors in the world; and only within the last ten or fifteen years has its use extended very largely here. In fact, they are building almost everything of concrete there. The largest single structure I ever built was the lining of a tunnel, that was complete, without a joint, from one end to the other, nearly 3 miles long—something over, as I recall it, 100,000 yards.

Senator GORMAN. Was that a railroad tunnel?

Mr. STEVENS. Yes, sir.

Senator MORGAN. I would like to say to the chairman of the committee, to venture an opinion—though I am not in any sense a scientific man and do not know anything about chemistry or anything of that sort—that Alabama can furnish to that canal, at a dollar a barrel, as good cement as you can make in France or Germany or elsewhere.

Mr. STEVENS. Portland cement?

Senator MORGAN. Portland cement, delivered at Colon—all that is necessary to fill up the canal, or ten times over.

Senator HOPKINS. I think it is regarded among engineers that the American Portland cement is the best quality, is as good as you can get abroad. Is not that correct?

Mr. STEVENS. Without doubt.

Senator HOPKINS. That has been my understanding for a number of years.

Mr. STEVENS. On this particular job that I speak of, I used largely foreign cement, because it came at a very low rate around the Horn. This was on the west coast of the State of Washington. But I recollect that at one time one of the ships got into distress around the Horn and put in at Valparaiso. The Lloyds made a survey of it, and they reported part of the cargo damaged. They were going to scale it to us. I said: "No; if part of the cargo is damaged, the chances are that the balance is, and I won't have it at all." That made me run short of cement, and I bought American cement in the East and took it across the continent; and in that way, as a result of the tests that I made then, I would prefer our American cement, although the cement we generally get are blended cements.

Senator DRYDEN. Does not the foreign cement lose part of its strength through dampness in being brought across?

Mr. STEVENS. No; I do not think the short time it is en route makes any difference.

Senator GORMAN. Mr. Stevens, if we adopt the minority plan for this dam below here, how much is it going to increase the length of your haul for the average material from the great divide? It makes a very much longer haul necessary there, does it not?

Mr. STEVENS. Do you mean the waste?

Senator GORMAN. Yes; the waste.

Mr. STEVENS. You will get the best dumping grounds for waste that I have found so far right in here below Bohio, right in this section here; and that haul is about the same as it would be if you hauled from the Culebra cut either to the Bohio dam or dumped in here. The length of your haul, of course, would be over this piece of track to Gatun. Let us get it exactly. I have had so many figures in my head that I can not remember them all. Gatun is 8 miles, and Bohio 17. It would increase your haul 9 miles.

Senator GORMAN. Nine miles of increase?

Mr. STEVENS. Yes. Of course you would not haul all of that. The majority of the material in here would come from the dredging.

Senator GORMAN. I see. Then you would find plenty of dumping ground for the balance in here?

Mr. STEVENS. Oh, yes, sir. You can find all the dumping grounds required here outside.

Senator GORMAN. This plan of the minority means a change of the location of your railroad through from ocean to ocean of 30 miles, does it not?

Mr. STEVENS. Yes, sir.

Senator GORMAN. And that means, of course, that the Canal Commission must pay for the reconstruction of the main line of the road?

Mr. STEVENS. Yes, sir.

Senator GORMAN. That is a part of the expense of the canal?

Mr. STEVENS. Yes, sir. That is estimated in the total cost.

Senator GORMAN. In the minority report?

Mr. STEVENS. Yes, sir.

Senator GORMAN. Well, do you get as favorable grades in reconstructing the road as you have now?

Mr. STEVENS. I think the amount they have estimated would give just as good a road as they have now; but I question whether or not I would spend money enough to build a first-class road after the canal is constructed. I think the Panama Railroad will be of very little value after the canal is built.

Senator GORMAN. You think it will not require it?

Mr. STEVENS. I should say, "No."

Senator GORMAN. In building a new road, can you buy the ties there now? Can you get them there?

Mr. STEVENS. Not adjacent to the canal. Those would probably be brought from farther down the coast, from the San Blas country or possibly from Colombia.

Senator GORMAN. That is the only material you have found that will stand that climate for any reasonable length of time?

Mr. STEVENS. Yes, sir. I think the cost now would be about \$2 a tie.

Senator GORMAN. You have brought a great many from Oregon, have you not?

Mr. STEVENS. I do not think we have brought any ties from Oregon. Last year, I think, all the supplies came from the Gulf coast.

Senator GORMAN. I have heard an intimation that they lasted just long enough to get them in.

Mr. STEVENS. I think all the ties that the Americans put in are there yet.

Senator GORMAN. Are they?

Mr. STEVENS. You will understand that they are largely for work tracks.

Senator GORMAN. Yes; I understand.

Mr. STEVENS. Now, any tie that you can use in a work track, around steam-shovel work, particularly, will never last long enough to rot. It will be cut to pieces by the continual changing, by the spiking. So it will be a waste of money to buy a high-priced tie.

Senator GORMAN. Only for the main line?

Mr. STEVENS. Only for the main line. And until the type of the canal is decided, and we know exactly how much the main line will have to be changed in the next five or six years, it will be a waste of money to put expensive ties in there, when you can get a cheaper tie that will last four or five years.

Senator GORMAN. Now, Mr. Stevens, I am very much gratified with one of your statements—that when this matter of the type of the canal is decided upon, then and not until then can you commence the work of digging it on a regular system. Do I understand you to say that?

Mr. STEVENS. No, sir; I did not mean to say that. I will commence on a regular system as soon as I get my equipment.

Senator GORMAN. And before you decide upon the type of the canal?

Mr. STEVENS. Oh, yes; I would not let that stop me. I would go on and take out material as fast as I could when I had something to do it with.

Senator GORMAN. But it will be impossible for you to attempt to contract, as I understand it, until the type of the canal is determined?

Mr. STEVENS. Why, I think so; yes, sir. It looks to me that way.

Senator GORMAN. And therefore your suggestion is that that question ought to be determined at the earliest possible moment?

Mr. STEVENS. Undoubtedly.

Senator GORMAN. When that has been determined, I understand you to say that you recommend contracting for most of this work?

Mr. STEVENS. Yes, sir.

Senator GORMAN. Do you mean by that only removing the material and getting the prism of the canal in shape, or do you mean contracting for the construction of the dam, for instance, and the locks?

Mr. STEVENS. Oh, I would separate the work in a natural division, such as would seem to be large enough to be worthy of the attention of any combination of capital or superintendency that we have in the country.

For instance, take the dredging; assuming that a lock canal is built, one division would be the dredging from the Caribbean Sea through to Gatun, which would be a very large contract. Then the



construction of the Gatun dam, then the Culebra cut—I would probably divide that in two, because the haul must go north and south—the construction of the Gatun locks, which involve something like fourteen or fifteen millions of dollars, including the excavation—that as a separate contract; possibly the construction of the other locks as a separate contract, and the other dams, etc.; and in that way you would have, perhaps, eight or ten different contracts.

Senator GORMAN. And you would divide it up in that way?

Mr. STEVENS. Yes, sir.

Senator GORMAN. And you can make your specifications, I suppose, so that there will be no trouble in getting intelligent bidders in the United States?

Mr. STEVENS. Why, I think the specifications can be made; yes, sir. It is a delicate matter to make them, one requiring a great deal of judgment; but I think we can make them.

Senator GORMAN. Suppose you were to undertake to divide the great cut in two, as an illustration, and advertise, you have the steam shovels owned by the Government and various other machinery. What would you do? Give them for the use of the contractors, or require them to buy that material?

Mr. STEVENS. It would be as broad as it is long. If you turned the plant over to the contractor, you would get a less figure in your bid. If you sold it to him, at cost we will assume, he would undoubtedly add the cost of it to his bid and increase the price enough to make it up in that way. If you let him have it on a rental, he would do the same thing.

Senator GORMAN. I assume now, that in purchasing all this equipment, which is necessarily very expensive, it was done on the theory that the Government would do the work as you are doing it down there now, by day labor?

Mr. STEVENS. No, sir. I can only answer for the equipment that I have bought. Take the sixty shovels that have been bought—forty-one of them were bought before I had any connection with the work.

Senator GORMAN. Yes.

Mr. STEVENS. I do not know what the assumption was at that time, what Mr. Wallace's or the Commission's idea was, but in my purchase of equipment I have aimed to keep this in view—to buy nothing excepting what I, as a contractor, in my best judgment, would require if I were going to do that work by contract. In other words, if a man wanted that contract I should hesitate very much in my judgment about his knowledge and ability to conduct the work unless he required that sort of equipment for that particular work.

Senator GORMAN. Precisely. So that you had in view then to dispose of it to the contractor if it were let out to contractors?

Mr. STEVENS. Certainly.

Senator GORMAN. You would not undertake to let a contractor have it for rental, as a matter of course?

Mr. STEVENS. Oh, I do not think so.

Senator GORMAN. Then, as to the removal of the material. The Government owning the railroad and the equipment, I suppose you would still have the matter of transportation under your control?

Mr. STEVENS. The transportation along the main line of the Panama Railroad must be kept in the hands of the Panama Railroad to

superintend the dispatching. I do not understand that the equipment would belong to the Panama Railroad; it would be the equipment belonging to the contractor who happens to take out that part of the cut. He could come up to the switch with his train, his equipment, and his men; there he would go under the orders of the train dispatcher of the Panama Railroad as long as he was on the rails of the Panama Railroad. He could do as he liked, as far as the Panama Railroad was concerned, once he was clear of that track.

Senator GORMAN. So that in any view the management of that road must be in the hands of the chief engineer?

Mr. STEVENS. It should be; yes, sir.

Senator GORMAN. I am very much gratified to have you make that statement.

Senator MORGAN. I just want to ask one question. Suppose you had a track laid now between Obispo and Miraflores, in the channel that you have cut out for the canal, could you run your engines through, your cars?

Mr. STEVENS. On the Panama Railroad?

Senator MORGAN. Yes.

Mr. STEVENS. Yes, sir; you could run them through, but you could not conduct your business and take out the canal at the same time.

Senator MORGAN. No, no; I am not talking about running the Panama Railroad as a commercial enterprise at all. I am speaking about the cars that would be necessary to carry off the spoil. Could you run such cars as are necessary to carry off the spoil in all the diggings between Obispo and Miraflores, for instance—can you run them in through the gap that is now cut?

Mr. STEVENS. Oh, yes, sir.

Senator MORGAN. Clear through?

Mr. STEVENS. But you understand that the canal would not be taken out in that way, by a continuous railroad through there.

Senator MORGAN. I understand that.

Mr. STEVENS. As I explained the other day, these lines must come out at separate points.

Senator MORGAN. We are speaking about transporting the spoil down to Gatun.

Mr. STEVENS. Yes, sir.

Senator MORGAN. You get that from Culebra—from those heights there?

Mr. STEVENS. Part of it; yes, sir.

Senator MORGAN. What I wanted to ascertain was whether you could, under present conditions, lay a track in there to carry that spoil down to the Panama Railroad, and on that railroad to Gatun.

Mr. STEVENS. Yes, sir; we have tracks laid down at several points where we take out spoil.

Senator MORGAN. And in the other direction, south, you could carry it to Miraflores?

Mr. STEVENS. Yes, sir; I am doing that.

Senator MORGAN. You are doing that?

Mr. STEVENS. I am doing that now, and have been for several weeks double tracking it west of Pedro Miguel.

Senator MORGAN. So that there is an open way there through which railroads can pass between Miraflores and Obispo, as you wish to carry them through?

Mr. STEVENS. Yes, sir.

Senator MORGAN. That is what I wanted to find out.

Mr. STEVENS. Of course, any railroad in the canal would be destroyed by taking out the prism, you know.

Senator MORGAN. I understand.

Senator GORMAN. Mr. Stevens, how long would it take you—of course it is largely in the nature of a guess, I know—after the type of this canal is determined upon by Congress, to prepare the specifications and advertise for bids?

Mr. STEVENS. I think the preparation of the specifications would probably require from thirty to forty days. They would be general specifications, intelligent enough so that a person could bid on them.

Senator GORMAN. A competent contractor would have a thorough opportunity to compete?

Mr. STEVENS. Well, of course they would necessarily take some time to look the ground over with the plans and specifications in their hands. That is the only way in which a man could give an intelligent bid. I would hesitate very much to accept a bid, no matter what the bond is, that was made out here somewhere in Michigan, perhaps by a man who never saw the country and knew nothing of the conditions.

Senator GORMAN. But still you think it is feasible to do that in from thirty to forty days?

Mr. STEVENS. Why, yes, sir; I think so. I think so.

The CHAIRMAN. That would not include the time of going to the Isthmus?

Mr. STEVENS. Oh, no, sir.

Senator GORMAN. Of course these contractors are enterprising fellows and pretty fair engineers. Have they been looking over the ground—any of them?

Mr. STEVENS. Not to my knowledge. They may have been. I do not know as to that.

Senator MORGAN. They have been looking it over.

Mr. STEVENS. They might have and I would not know it, you know. I do not recall anyone that has come to me asking for any data or anything of that sort.

Senator DRYDEN. Senator Morgan, is additional legislation necessary in order to put this work out by contract?

Senator MORGAN. I think a great deal of additional legislation is needed here, for the reason that we have now nothing but the will of the President in regard to anything, and have been running along in that way. I do not say that he has abused his powers or anything of the sort; but it is about time for us to come down to legislation on this subject. I think that is one of the most important steps we have to devise here—what the legislation shall be.

(The committee thereupon adjourned until to-morrow, Wednesday, January 24, 1906, at 2.30 o'clock p. m.)

SENATE COMMITTEE ON INTEROCEANIC CANALS,  
*Wednesday, January 24, 1906.*

The committee met at 2.30 o'clock p. m.

Present: Senators Millard (chairman), Kittredge, Dryden, Hopkins, Morgan, Gorman, and Simmons; also John F. Stevens, esq., chief engineer of the Isthmian Canal Commission.

**STATEMENT OF JOHN F. STEVENS, ESQ.—Continued.**

The CHAIRMAN. Mr. Stevens, I think we are ready to proceed now.

Senator MORGAN. I want to ask Mr. Stevens one preliminary question about a matter that I am not yet satisfied about: What is the width of the canal, estimated on the basis of the minority report, at Gamboa?

Mr. STEVENS. I think, Senator, that I would have to refer to the printed memorandum that I had here yesterday about that.

Senator MORGAN. Did you get that memorandum from the minority report?

Mr. STEVENS. It was made up from both reports.

Senator MORGAN. Those reports are here, and you can refer to them.

Senator DRYDEN. Your question was, Senator, as to the width of the canal at Gamboa?

Senator MORGAN. Yes.

Mr. STEVENS. My recollection is that the width of the entire water there would be something like a mile and a quarter.

Senator MORGAN. That is, between the ridges?

Mr. STEVENS. Yes, sir.

Senator MORGAN. And there would be no particular prism of the canal in that?

Mr. STEVENS. There is a well-defined depth in the ship channel proper.

Senator MORGAN. Of how many feet?

Mr. STEVENS. My recollection is that it is 500 feet, but I am not sure.

Senator HOPKINS. Are you referring to the depth?

Senator MORGAN. A depth of 40 feet for 500 feet in width.

Mr. STEVENS. Forty-five feet. The depths in the minority report are all 45 feet, with the exception of in the locks.

Senator GORMAN. At what point is that?

Mr. STEVENS. Opposite Gamboa.

Senator HOPKINS. What is the depth there, you say?

Mr. STEVENS. Forty-five feet. I have those widths all drawn off on that sheet that I had here yesterday, as a matter of comparison. I know that it is 500 feet at that point, and it narrows to 300 feet up to Las Cascadas, where it is 200, through the deep cutting.

Senator MORGAN. Is the width of 500 feet there measured between the ridges at the level of the canal?

Mr. STEVENS. At the bottom of the canal there is a width of 500 feet, and between the bluffs—that is, the amount of dead water across there—would be about a mile and a quarter. That would be really the basin where the Gamboa gap debouches into the main valley.

Senator MORGAN. I desire to call your attention to that point, because I wish to remove any possible doubt, if there is any doubt, as to the effect of a flood in the Chagres River disturbing the navigation of a ship or disturbing the movement of the water through the canal. I will suppose that there is a flood in the Chagres River of 30 feet. That, perhaps, is not an extravagant expectation, that there will be a flood of 30 feet in the Chagres River at one time above the mean level?

Mr. STEVENS. At one period. Of course that would not be a simultaneous wall of water of 30 feet, but it might rise in a few hours 30 feet.

Senator MORGAN. That is what I mean. That body of water precipitated from the Chagres River upon the canal at Gamboa would cause, ordinarily, a great disturbance in a canal that was 150 or 200 feet wide; but in a canal that is 500 feet wide, and in an area of lake water between the ridges which you say is 2 miles wide——

Mr. STEVENS. I said a mile and a quarter.

Senator MORGAN (continuing). A mile and a quarter wide; is it your opinion that a flood of 30 feet in the Chagres River, a sudden precipitation of water, causing a flood of 30 feet in the Chagres River, would in any material sense disturb either the navigation or any of the works that might be connected with the canal at Gamboa?

Mr. STEVENS. I do not think it would, taking the length of time we would naturally expect that that amount of 30 feet of water would take to come and the length of dead water it would have before it would reach the prism of the canal, which would be 7 or 8 miles.

Senator MORGAN. When it reached the point of discharge at Gamboa, we will say, then it would flow out into a lake that includes all the distance between Miraflores and Gatun?

Mr. STEVENS. Yes, sir.

Senator MORGAN. And all of the inlets and outlets to that lake?

Mr. STEVENS. Yes, sir; about 115 square miles, we may say.

Senator MORGAN. Is that your estimate of the lake surface that is created by the dam at Gatun?

Mr. STEVENS. Yes, sir.

Senator MORGAN. One hundred and fifteen square miles?

Mr. STEVENS. About 115 square miles.

Senator MORGAN. It seems very reasonable that no flood in the Chagres River that is known could disturb the water over 115 square miles to any serious degree.

Mr. STEVENS. It does not seem so to me; but of course that would not be the material point. The material point would be, would it disturb the water at the point of entrance to the canal prism?

Senator MORGAN. That is the point I wanted to get at. Is there any way, by widening the point through which flood waters from the Chagres would be admitted into the canal, to distribute them by additional cutting out?

Mr. STEVENS. That cutting could be deepened, of course—that is, that basin in the mountains could be deepened to, say, 45 feet, the depth of water in the canal prism proper, over an almost indefinite extent. You could go down 2 or 3 miles if you liked.

Senator MORGAN. You have considered these subjects, I suppose, maturely?

Mr. STEVENS. I have given them serious consideration.

Senator MORGAN. You have studied them?

Mr. STEVENS. Yes, sir.

Senator MORGAN. Is it your opinion, then, that there is any danger of a disturbance of the navigation of the canal or any danger of injury to any part of the canal if a flood of 30 feet should occur in the Chagres River that would rise in, say, twelve hours?

Mr. STEVENS. I should say no, sir.

Senator MORGAN. You would say no?

Mr. STEVENS. Yes, sir; I should say so.

Senator MORGAN. Do you feel entirely confident in that opinion?

Mr. STEVENS. That is my opinion. I am confident about it.

Senator MORGAN. I call your attention to it particularly, because it seems to me that that is the real, central point of inquiry with regard to this whole business after you get your dam elevated and you make the lake. That is the point, and the only point, at which the lake is liable to be attacked by a heavy precipitation of flood water into it from the mountains?

Mr. STEVENS. Yes, sir.

Senator MORGAN. That is the only point?

Mr. STEVENS. That is the greatest point to be considered. I do not think the others are worthy of discussion.

Senator MORGAN. If we can handle that question at Gamboa, then we may consider that every objection is answered on that score as to the precipitation of water from any other stream?

Mr. STEVENS. It would seem so to me; yes.

Senator MORGAN. That is what I wanted to ask about. I wanted to center the attention of the committee, and after a while, probably, of Congress, upon the fact that the resistance that is afforded by the lake waters and the opportunity for the spread of flood waters at Gamboa is sufficient to meet any flood in the Chagres River of, say, 30 feet elevation, and precipitated, say, within twelve hours.

Mr. STEVENS. I think that a rise of 30 feet in twelve hours would probably be abnormal, but still it would be no more than safe to assume that.

Senator MORGAN. That is what I wanted to get at. It would be safe to assume that?

Mr. STEVENS. Yes. That is what we are trying to do—to keep on the safe side.

Senator MORGAN. I have no further questions to ask Mr. Stevens at this time.

Mr. STEVENS. You see, Senator Morgan, the precipitation of the flood you have described, or any other, does not occur in a compact mass, we might say, immediately into the prism of the canal. There is from a third to half a mile of expansion, I may say, or widening, below the Gamboa gap, where this flood would ease out, if I may so express it, before it would strike the navigable channel.

Senator HOPKINS. Then that flood is retarded for a distance of six or seven miles before you get to Gamboa, is it not, by the dead water that is thrown back?

Mr. STEVENS. Yes, sir.

Senator MORGAN. Twelve miles.

Senator HOPKINS. Whatever the distance is.

Mr. STEVENS. I do not know the exact distance from memory, but the maps will show it. It is not less than 8 or 9 miles to the valley line, possibly it is 10 miles.

Senator GORMAN. What makes that dead water? Is it the dam at Gatun?

Mr. STEVENS. Yes, sir.

Senator GORMAN. That is high enough?

Mr. STEVENS. Oh, yes, sir. Those are actual levels. There is no doubt about that. They do not vary, probably, an inch.

Senator KITTREDGE. When did you begin to make borings at Gatun?

Mr. STEVENS. I commenced in September.

Senator KITTREDGE. About what time in September?

Mr. STEVENS. I think the latter part of it. I do not remember the date.

Senator KITTREDGE. Were those borings made under your personal direction?

Mr. STEVENS. Oh, no; they were made by my engineers on the ground.

Senator KITTREDGE. Who had charge?

Mr. STEVENS. Mr. Maltby, division engineer at Colon.

Senator KITTREDGE. Is that the same engineer that was there a year ago last November?

Mr. STEVENS. No, sir; I think not. I think Mr. Maltby went there about in March or April.

Senator KITTREDGE. And from what part of the United States?

Mr. STEVENS. He went from Memphis. He has been with the Mississippi River Commission for a great many years, in charge of their dredging.

Senator KITTREDGE. How long did those borings continue?

Mr. STEVENS. We worked two and three parties there with drills to about the time—yes, after the consulting board came back; we might say to the middle of November or longer.

Senator KITTREDGE. And what were the results of those borings?

Mr. STEVENS. The result showed that something like 200 feet overlying the rock—the so-called “indurated clay”—there was a blanket of clay with a small mixture of very fine sand, and that no permeable material—that is, material that would carry water—was found for a depth of about 200 feet.

Senator MORGAN. Two hundred feet reaching down to the rock?

Mr. STEVENS. Yes, sir.

Senator KITTREDGE. In those borings were any materials encountered such as shells and wood?

Mr. STEVENS. I do not think there were. I do not recollect that there was anything of that kind.

Senator KITTREDGE. I call your attention to the statement of the minority, on page 4, and read:

Many of the borings (referring to the borings at Gatun in September, 1905) even at those considerable depths (referring to the depth of 204 feet below the sea level) encountered shells, wood, and vegetable matter, all tending to show that the material had been deposited in currents too sluggish to transport gravel and other coarse material.

Had you in mind that condition of affairs?

Mr. STEVENS. I do not recall the specific details of what was

brought up by the drills, you know. I simply know that the material was fine, as indicating that the currents were slow, no coarse gravel being encountered.

Senator KITTREDGE. In what respect did the result of the borings at Gatun differ from the borings at Bohio?

Mr. STEVENS. Those at Bohio developed the fact that there was coarse gravel, water-bearing strata.

Senator MORGAN. What did the borings at Gatun develop?

Mr. STEVENS. They developed clay and finer material—fine sand, which is considered impermeable.

Senator MORGAN. What you read there, Senator Kittredge, was in regard to the Bohio dam, was it?

Senator KITTREDGE. No, sir; Gatun.

Senator MORGAN. At Gatun?

Senator KITTREDGE. Yes.

Senator MORGAN. Will you read that again, please?

Senator KITTREDGE. I only read one sentence. I will read the whole paragraph [reading from the minority report of the consulting engineers, p. 4]:

The borings made prior to September, 1905, at and near Gatun showed nearly everywhere an admixture of sand with clay and impervious material, with a maximum depth to rock of 204 feet below sea level. Many of the borings, even at those considerable depths, encountered shells, wood, and vegetable matter, all tending to show that the material had been deposited in currents too sluggish to transport gravel and other coarse material.

The borings were "water-jet" or "wash-drill" borings, made by first driving, when necessary, an iron pipe (known as a "casing"), having an inside diameter of 2½ inches, and then inserting a smaller pipe, through which a jet of water was forced, washing the material in the larger pipe through the annular space between the two pipes to the surface of the ground. It was characteristic of these borings, and also significant, that in many cases it was not necessary to drive any casing, or if one was driven it was not necessary to drive it to the full depth, as the material contained enough clay to sustain the sides of the hole without the casing.

Of 27 borings made before September with reference to the location of a dam at or near Gatun, no casing was used in 13 holes, in 3 other holes the length of casing did not exceed 20 feet, while in the remainder the length of casing ranged from 28 to 101 feet; but in no instance was the casing driven much more than halfway down to the bottom of the hole.

The depth to rock was shown to be so great, both at Bohio and at Gatun, that it would be costly and difficult in either case, if not impracticable, to excavate to the rock or to provide any efficient cut-off or stop water extending from the surface of the ground to the rock, and if a dam were to be built without such cut-off the borings showed clearly that there would be much less seepage beneath a dam built at Gatun than at Bohio.

Senator HOPKINS. Does not that show that at Gatun, for a depth of two hundred and odd feet, the material is impervious to water, and that the shells are discovered at a depth of 205 feet? Is not that it?

Senator KITTREDGE. That is what I was desirous of ascertaining from Mr. Stevens.

Senator HOPKINS. If I understood that correctly, it corroborated what Mr. Stevens said. I wanted to see whether I had read that correctly.

Senator MORGAN. Did you make those borings before September?

Mr. STEVENS. No, sir.

Senator MORGAN. Your borings were made since that time?

Mr. STEVENS. Yes, sir.



Senator MORGAN. You are predicating what you state here in regard to the dam at Gatun upon those borings?

Mr. STEVENS. Well, largely on those, of course. I took into consideration all the borings and the fact that the material universally showed that it was a heavy body of clay, with a little admixture of very fine sand, with no gravel.

Senator MORGAN. In the borings you made did you come across any of the conditions mentioned in what has been read by Senator Kittredge?

Mr. STEVENS. I do not recall any timber or shells. I would not say that there were none. I would not regard it as significant, particularly as to the timber. Small particles of timber might be brought down at any time of flood. I do not think that would be significant. I have found petrified wood at the mouth of an alluvial stream 600 feet below the level of the ocean.

Senator KITTREDGE. How many borings in all were made under your direction after you arrived at the Isthmus and began these operations?

Mr. STEVENS. I could not give you the exact number, Senator.

Senator KITTREDGE. About how many were made?

Mr. STEVENS. I should judge there were 40 or 50 at least.

Senator KITTREDGE. Where, with reference to the channel of the Chagres River?

Mr. STEVENS. They were made laterally across the channel. Quite a number were made on the hills, where the proposed location of the locks is, and up and down the streams in the bottom of the valley between the channels.

Senator KITTREDGE. Have you records made showing the exact location of these borings?

Mr. STEVENS. Yes, sir.

Senator KITTREDGE. Is that information on file in the office at Washington?

Mr. STEVENS. It was all placed in the hands of the consulting board, and it is either in the office or in their possession. It is available in this country.

Senator KITTREDGE. You say about 40 borings were made in all?

Mr. STEVENS. That I had made; 40 or more.

Senator KITTREDGE. That is what I mean, under your direction.

Mr. STEVENS. Yes, sir.

Senator KITTREDGE. And about how many were made at the location of the triple locks or the proposed triple locks?

Mr. STEVENS. There were probably ten or fifteen.

Senator KITTREDGE. How many were made between that point and the river, going west?

Mr. STEVENS. They started and put them down at different distances from the mountain where the locks were located, and continued across the straight line of the proposed dam, clear across the high ground. I can not tell you the exact number without reference to the records.

Senator KITTREDGE. What is the distance between the location of the locks at Gatun and the other side, the western terminus of the proposed dam?

Mr. STEVENS. About 7,000 feet.

Senator KITTREDGE. Through that distance you made borings to the number of about twenty-five?

Mr. STEVENS. In that vicinity; yes, sir. I am depending upon my memory, you know.

Senator KITTREDGE. I understand, of course.

Mr. STEVENS. I can not tell exactly.

Senator KITTREDGE. Of course. How close were those borings to each other?

Mr. STEVENS. They were different distances apart. In some cases they were 50 feet apart, and sometimes 100 feet apart.

Senator KITTREDGE. Were there any places where they were nearer together than 50 feet?

Mr. STEVENS. I am under the impression that there were. I think they started certain holes and had trouble getting down and started others alongside of them.

Senator KITTREDGE. I refer to perfect borings.

Mr. STEVENS. I do not think there were, no; not perfect borings. You understand that we have cross-section sheets, blueprints showing the exact location and depth of every hole on the map.

Senator KITTREDGE. What do your records show in regard to borings made prior to those for which you were personally responsible?

Mr. STEVENS. They show generally the same state of affairs, the same kind of material that the prior ones show.

Senator KITTREDGE. How far back do they date?

Mr. STEVENS. I could not tell you that. They were made before my time.

Senator KITTREDGE. Do you know whether a great many were made under the direction of Mr. Wallace?

Mr. STEVENS. I could not tell you that. I do not know who made them. I am under the impression that Mr. Wallace had them made. I did not consider that there had been enough made to develop the situation, and that is why I had the rest made.

Senator KITTREDGE. Were there any made under the management of the French?

Mr. STEVENS. I could not tell you that.

Senator KITTREDGE. You spoke yesterday of a dam of any sort at Bohio being possible. Did I understand you correctly?

Mr. STEVENS. I do not quite think you did, Senator.

Senator KITTREDGE. Just what was your view upon the subject of the construction of a dam at Bohio at or near the location recommended by the French and the Walker Commission?

Mr. STEVENS. I do not recall my exact language; but my notion in regard to that is that the foundation at Bohio was not as good as it is at Gatun. The fact that a mountain of permeable material, water-bearing strata, is encountered there would render it a grave question whether the escape of water through that strata would not be very disastrous and would take too much water away from the lake. There is no danger, in either case, of the stability of the dam going up.

Senator KITTREDGE. Your notion, then, is that it would in no manner affect the stability of the dam, but might affect the water supply?

Mr. STEVENS. The water might escape through the gravel at Bohio.

Senator KITTREDGE. For that reason you would regard it as unsafe to construct a dam at Bohio? Is that right?

Mr. STEVENS. I would not say it is unsafe. I say it is largely a matter of experiment, which I do not think would obtain at Gatun.

Senator KITTREDGE. What is your judgment about the Bohio situation? That is what I am getting at.

Mr. STEVENS. In what respect? Would I countenance putting a dam there?

Senator KITTREDGE. Would you advise this committee to recommend to the Senate the construction of a dam at Bohio?

Mr. STEVENS. I should certainly want to cut off some of that flow of water that might possibly occur through the subaqueous foundation. I do not say it must all be cut off, because 163 feet is quite a depth to work.

Senator KITTREDGE. Without its being cut off, you would regard the construction of the dam as inadvisable at that point?

Mr. STEVENS. I would not recommend it.

Senator KITTREDGE. What sort of a dam?

Mr. STEVENS. Why, I would build an earthen dam, in any case, of very large dimensions.

Senator KITTREDGE. But you would not advise even that at Bohio?

Mr. STEVENS. Not without the works being constructed to cut off the flow of water that might possibly occur. It is one of those things that might or might not happen. In a matter of this kind, where we want to be absolutely safe, it would be better, as a matter of insurance, to take that precaution, although it is not a thing that any engineer can say will occur.

Senator KITTREDGE. What is the distance across the valley at Bohio?

Mr. STEVENS. I think it is somewhat shorter than it is at Gatun. Possibly it is about a mile.

Senator KITTREDGE. There is not so very much difference?

Mr. STEVENS. There is not so very much difference, as I recall it.

Senator KITTREDGE. In the event of the construction of the dam at Bohio, what method would you advise to shut off the escape of water that you have mentioned?

Mr. STEVENS. That is a point that has never been decided, even in my own mind. There are several ways in which it can be done. You can drive steel piling or sheet piling down to 60 or 70 feet, possibly 80.

Senator KITTREDGE. Piling of what character?

Mr. STEVENS. Steel overlapping piling. There are other ways in which, probably, the work could be done. We can drill through the loose material holes very close together and fill them with cement, cement mixed with gravel, forced down by pumps, and this cement will set and harden and form a wing that will shut off the water.

Senator KITTREDGE. In other words, you would squirt the cement in?

Mr. STEVENS. That is the word exactly.

Senator KITTREDGE. Putting the cement down beneath the surface of the ground under the water?

Mr. STEVENS. Yes, sir.

Senator KITTREDGE. And in that manner you would provide a sort of screen to shut off the water?

Mr. STEVENS. Yes, sir.

Senator KITTREDGE. Do you regard that as a satisfactory way to treat the condition?

Mr. STEVENS. It is so considered among engineers. I have had no experience as to that, and can not quote any place where it has been used. The consensus of opinion among the people I have talked with on the subject is that it is satisfactory. It is used by the Germans in a great many cases, and I think it has been used in this country in tunneling where you have wet, heavy ground. You bore ahead and bore ahead and inject the cement and let it set and shut off the flow of water and dig it out afterwards, keeping this work ahead of you all the time. That is supplemented in many cases by the Germans by freezing the ground ahead, which simply solidifies the ground.

George Morrison's opinion, as I remember, was that nothing of the kind was needed at Bohio; but, as I say, I would be a little more conservative, and I would feel a little dubious about the result without some such work as that.

Senator KITTREDGE. You would hesitate about recommending a dam at Bohio of the form that you have suggested?

Mr. STEVENS. Or any dam.

Senator KITTREDGE. That is what I mean—any dam.

Mr. STEVENS. Any dam; unless, of course, it should be a dam which would be practically impossible, a dam going clear to rock.

Senator KITTREDGE. I understand. It is an impossibility, as I understand, to get to rock?

Mr. STEVENS. I think it is.

Senator KITTREDGE. At the depth you find it at Bohio or at Gatun?

Mr. STEVENS. Nothing is impossible with money; but there is a point beyond which it ceases to be an economy.

Senator KITTREDGE. The solid rock below the surface of the water at Bohio is 168 feet?

Mr. STEVENS. I think the deepest boring is 163 feet.

Senator KITTREDGE. One hundred and sixty-three feet?

Mr. STEVENS. The old borings which they thought were rock, but which were boulders, were 128 feet.

Senator KITTREDGE. Yes.

Mr. STEVENS. Those afterwards developed by Mr. Wallace were 163 feet.

Senator KITTREDGE. Are you sure it is not 168 feet?

Mr. STEVENS. I am not sure.

Senator KITTREDGE. My recollection is that it is 168 feet.

Mr. STEVENS. My recollection is that the depths of the borings were 128 feet and 163 feet. I may be wrong, possibly.

Senator KITTREDGE. How is it at Gatun? How far below the surface of the water is the solid rock?

Mr. STEVENS. The deepest there was 204 feet below the sea level, and that is practically the surface of the water.

Senator KITTREDGE. Have I not seen in some of these reports that it was 258 feet?

Mr. STEVENS. I do not think so.

Senator KITTREDGE. Where do you think this water goes that clearly passes under the surface at Bohio?

Mr. STEVENS. That is a question, of course, that I could not answer. It may come out in the depths of the Caribbean Sea, or it may come out at some point in the river.

Senator KITTREDGE. Is it not inevitable that that same fall of water passes under the site of the proposed dam at Gatun?

Mr. STEVENS. It may or it may not.

Senator KITTREDGE. What do you think about it?

Mr. STEVENS. I do not think it does, because the area of the water-bearing material there was so very insignificant that it could not pass under.

Senator KITTREDGE. Suppose you had made more borings, might you not have discovered the same conditions?

Mr. STEVENS. I do not see how we could, when we bored clear across the whole area covered by the dam—the whole width of it—and did not find that condition.

Senator KITTREDGE. If it does not pass down in that direction to the sea, does it come under the mountains or the hills that are—

Mr. STEVENS. It may come up into the river again between Bohio and Gatun.

Senator KITTREDGE. Into the river?

Mr. STEVENS. It may; yes.

Senator KITTREDGE. Have any borings been made to ascertain that fact, if it is a fact?

Mr. STEVENS. Not that I know of.

Senator KITTREDGE. Would you think it advisable that that be done?

Mr. STEVENS. Why, I should not consider it necessary.

Senator KITTREDGE. You answered a question that I asked yesterday, but to have it conveniently in the record here, I will ask you how deep you propose to go for the foundation of the dam at Gatun.

Mr. STEVENS. I propose to dig through the soft alluvial débris on the surface; that is all.

Senator KITTREDGE. And that varies?

Mr. STEVENS. That may be 10 to 20 feet, or something like that—until you get down to the firm clay.

Senator KITTREDGE. In no case deeper than 20 feet?

Mr. STEVENS. I do not think so; no, sir.

Senator KITTREDGE. And in no case less than 10?

Mr. STEVENS. That is my recollection—within those limits. It might vary a few feet, more or less.

Senator KITTREDGE. And at the foundation of the dam it is 2,700 feet thick?

Mr. STEVENS. Twenty-six hundred and a fraction; practically 2,700 feet.

Senator KITTREDGE. As the dam increases in height the width decreases?

Mr. STEVENS. Yes, sir.

Senator KITTREDGE. Give the distances as it proceeds in elevation.

Mr. STEVENS. You must understand that I have not made the plans for this dam. I have not even seen the details. Those have been submitted by the advisory board. Although I have never seen a plan, I have the impression that on the down strip side the slope is 1 in 25. In other words, for every foot of rise you go out 25 feet.

Senator KITTREDGE. Your dam is 7,000 feet long and it is 2,700 feet thick at the base?

Mr. STEVENS. Yes, sir.

Senator KITTREDGE. It is, as I recollect, 135 feet in height?

Mr. STEVENS. Yes, sir.

Senator KITTREDGE. That is, above the surface of the ground. Is that right?

Mr. STEVENS. Yes, sir.

Senator KITTREDGE. How thick would that dam be at the surface of the water, as you expect it to be?

Mr. STEVENS. Three hundred and seventy-four feet. I recall that.

Senator KITTREDGE. At what point does the thickness begin to decrease as it rises in elevation—at once?

Mr. STEVENS. Oh, yes.

Senator HOPKINS. He said 1 foot in every 25.

Senator KITTREDGE. Yes. What I meant by that question is, does it begin to decrease at the foundation or at the surface of the country as it now appears?

Mr. STEVENS. Well, they would practically be the same in 20 feet, you know; there would be no difference. Of course, theoretically, it should commence where the line of pressure begins, at the lowest line of the water level, the bottom of the extreme depth of water. There it should commence, and decrease toward the top. I have never seen a plan of the bottom. I have only had it described to me. Of course a dozen different engineers might make a dozen different plans, varying slightly in detail, but the fact remains that at the water level the dam would be 374 feet wide and about 2,700 feet (within 20 or 30 feet more or less) at the base.

Senator KITTREDGE. In reading the report of the minority last night, I noticed that General Abbott recommends the construction of a duplicate lock at Gatun and a third lock at Bohio, or favors that. Have you any suggestions to make to the committee upon that subject?

Mr. STEVENS. No, sir.

Senator KITTREDGE. Do you know the width of the Suez Canal at the bottom and at the surface of the water?

Mr. STEVENS. No; I can not give it to you offhand; but the width at the bottom is something in the vicinity of 150 feet or 160 feet. This report gives it exactly. At the surface, I think, there is now 31 feet of water in the Suez Canal. That is the navigable depth.

Senator KITTREDGE. You may look at these reports, if you wish [the minority and majority reports of the consulting board of engineers].

Mr. STEVENS. That is the navigable depth, 31 feet, which they are now deepening to 34 feet. I do not even know that they give it in these reports. I have it somewhere, but there are so many of these figures that it is pretty hard work for me to carry them in my head. The only thing I carry in my head about the Suez Canal is that there is 31 feet of water. It may be in the other report there. I have not looked at that.

Senator KITTREDGE. It is not worth while taking up time looking for it.

Mr. STEVENS. I do not seem to see it in the index.

Senator KITTREDGE. I will withdraw that question, so that you may look it up a little later.

Mr. STEVENS. Practically it is not to exceed 150 or 160 feet on the bottom. The surface width would, of course, depend entirely on the

slope that is used. That being a sandy country through there, I should imagine it would be about, for a 30-foot depth, probably 300 feet or 350 feet wide on the surface.

Senator KITTREDGE. Before I pursue that inquiry further, I want to call your attention to statements of the majority of the Consulting Board of Engineers upon the question of the Gatun dam. I read from pages 28 and 29:

It has not been proposed to dredge out the soft and yielding material at either place other than possibly a shallow strip of the natural surface, nor has it been proposed to sink a curtain either of masonry or of timber, such as deep sheet piling or of any other material, to cut off percolation or seepage underneath the structure.

These are grave considerations in the design of dams to retain water of depths varying from 30 to possibly 85 feet or more. The subsurface material at Mindi and at Gatun, extending down to the hard, indurated, sandy clay or soft rock, attaining a maximum depth of 258 feet—

There I find the figures 258. Are the board in error in that?

Mr. STEVENS. I can not say from memory about that; I do not know, Senator.

Senator KITTREDGE. The deepest boring that you made at Gatun, as I understand it, was—

Mr. STEVENS. Two hundred and four feet, according to my recollection. Anyhow, we were in indurated clay, whatever the depth may be.

Senator KITTREDGE. And this statement that I have just read indicates that the Board of Consulting Engineers were in possession of information showing that borings had been made at the dam site at Gatun to the depth of 258 feet. That is right, is it not?

Mr. STEVENS. That is the inference from that report.

Senator KITTREDGE. I continue to read:

is in large part of a comparatively fine character, consisting of sand and clay in varying portions and in various degrees of admixture, but the borings have also shown coarse sand and gravel with water flowing through it and out of some of the pipes used in making the examinations.

Did you observe any of those conditions in the examinations or borings that were made under your direction?

Mr. STEVENS. Water came from one of the pipes, as I recall it, from a depth of something like over 200 feet. I do not recall any particular gravel that came up. There was no coarse gravel, as in the case of Bohio there was gravel 2 inches in diameter that would barely come up through the pipes. I do not know what size pipe they used.

Senator KITTREDGE. I continue to read:

As a presumption or speculation it may be stated as probable that most of this material under the weight of an earthen dam would be so nearly impervious that a small or negligible quantity of water only would find its way through, even with the increased head of the reservoir; but that is simply conjecture.

Do you agree with that statement?

Mr. STEVENS. No, sir; I think that the quantity that would go through would be entirely negligible.

Senator KITTREDGE. Do you agree that that is conjecture, as the board suggests?

Mr. STEVENS. No, sir; it is proved, to my mind.

Senator KITTREDGE. In what manner has it been proven to your mind?

Mr. STEVENS. Because I think the nature of the material they drill through would show that the water would not go through, to any extent.

Senator KITTREDGE. I understand; but the only borings under your direction were to a depth of 204 feet?

Mr. STEVENS. That is my recollection. We went to the rock, though, with every boring.

Senator KITTREDGE. The statement is made here, or at least the inference is clear, that the board had in its possession the result of borings to the depth of 258 feet, is it not?

Mr. STEVENS. That is what the report says. I can not recall the exact depth, in my mind. They had access to the records which we furnished them.

Senator KITTREDGE. I continue to read:

It is more than possible, it is highly probable, if not certain, that at various points the material is sufficiently loose in texture to permit seepage or percolation in dangerous quantities.

What do you advise us in regard to the correctness of that statement made by the Board of Consulting Engineers?

Mr. STEVENS. I do not agree with it.

Senator KITTREDGE. And you base it upon the result of your examinations as you have stated them?

Mr. STEVENS. Yes, sir.

Senator KITTREDGE. I continue to read:

Nothing is more common in the sandy deposits of river valleys and in all sandy material than small passages or channels through which water moves, varying in size from thread-like openings to those sufficient to yield flowing wells of large discharge. Extended experience in dealing with the underground flow of subsurface waters in many places in the United States, and wherever investigations in that field of hydraulics have been made, show this to be the case.

Senator SIMMONS. Are you reading that from the majority report or the minority report?

Senator KITTREDGE. From the majority report.

Senator SIMMONS. That is what I supposed.

The CHAIRMAN. That relates to both Gatun and Bohio, does it not?

Senator KITTREDGE. Yes. I am speaking of Gatun.

I pass over several paragraphs and read the following on page 29:

The United States Government is proposing to expend many millions of dollars for the construction of this great waterway to serve the commerce of the world for all time, whose very existence would depend upon the permanent stability and unquestioned safety of its dams.

Is that a correct statement?

Mr. STEVENS. The perpetuity of the canal would depend on the safety of the dams. There is no question about that.

Senator GORMAN. At either place?

Senator KITTREDGE. At either place, where there is a lock canal; if you were to have a lock canal. Is that right?

Mr. STEVENS. The safety of the dams must be assured.

Senator KITTREDGE. In other words, the dam, either at Gatun or at Bohio or wherever else it may be decided to place it, if a lock canal is determined upon, must be absolutely safe?

Mr. STEVENS. If you build dams, they must be absolutely safe. There is no question about that.



Senator KITTREDGE. In other words, a safe dam is a key to the integrity of the entire lock canal. That is right, is it not?

Mr. STEVENS. Of course a lock canal can be built without any dams at all.

Senator KITTREDGE. At this point?

Mr. STEVENS. No, sir.

Senator KITTREDGE. Well, we are talking about that, of course, Mr. Stevens.

Mr. STEVENS. You spoke of several points. You spoke of Gatun and Bohio, and the west end, the south end. For instance, you could dig a sea-level canal up to Bas Obispo, where the mountain starts, and then lock there, and it would require no dam.

Senator KITTREDGE. As I understand, none of the plans you now suggest have been recommended by any board or seriously considered?

Mr. STEVENS. Not to my knowledge.

Senator KITTREDGE. The minority of the Board of Consulting Engineers recommends the construction of a dam at Gatun and a lock canal of 85 feet elevation. In order to have any canal at all that dam must be an absolutely safe structure?

Mr. STEVENS. Surely.

Senator KITTREDGE. Passing now from the dam at Gatun to the dam at Gamboa: Under the plan proposed by the Board of Consulting Engineers, as I understand, that Board recommend the construction of a masonry dam at Gamboa for the purpose of controlling the flood waters of the Chagres?

Mr. STEVENS. If I recall their words aright, they say either a masonry dam or an earth and masonry dam.

Senator KITTREDGE. You told me yesterday that the foundations of this dam were laid in solid trap rock?

Mr. STEVENS. At about 50 feet, at the deepest point, you strike the rock.

Senator KITTREDGE. There is no difficulty in reaching the rock at any point at which the dam is to be constructed?

Mr. STEVENS. No, sir.

Senator KITTREDGE. The purpose of that dam is to impound the flood water and then, with proper appliances, to permit the escape of the water at suitable times in the canal and out to sea?

Mr. STEVENS. Yes, sir.

Senator KITTREDGE. Is there anything about this dam that makes it impossible to construct an absolutely safe dam?

Mr. STEVENS. Nothing except a faulty design or a faulty execution of the work.

Senator KITTREDGE. And that, of course, you would not count against the structure?

Mr. STEVENS. No, sir. The natural conditions are good.

Senator KITTREDGE. So that the answer is that you would secure an absolutely safe structure at that point?

Mr. STEVENS. As far as human foresight could prevail.

Senator KITTREDGE. Exactly. Is there anything about the purpose of the structure that would make that feature of the sea-level canal a doubtful proposition?

Mr. STEVENS. No; not if the dam were properly built, excepting always the danger of an artificial masonry work from attack in case of war, or something of that sort.

Senator KITTREDGE. Well, there is no more danger in that, then, than in any similar structure?

Mr. STEVENS. I say any artificial work or masonry.

Senator KITTREDGE. Passing for the moment to the tidal lock structure of the sea-level canal, where is that to be located?

Mr. STEVENS. At Sosa—between Sosa and Ancon Hill.

Senator KITTREDGE. Does not the Board, while expressing a preference for that point, indicate that a change may be made in that regard?

Mr. STEVENS. I do not recall their language. I have not read that report for a week or ten days. I could not remember those things.

Senator KITTREDGE. Is there anything to hinder a tidal lock being constructed at Miraflores?

Mr. STEVENS. Not in my opinion; no, sir.

Senator KITTREDGE. At that point the foundation is, as you stated yesterday, in rock?

Mr. STEVENS. The rock is very near the surface there; very near.

Senator KITTREDGE. Do you recall any feature or any condition surrounding that location that would prevent the construction of a tidal lock at Miraflores?

Mr. STEVENS. I do not recall any; no, sir.

Senator KITTREDGE. If the sea-level canal be adopted, what is your judgment about the advisability of constructing a tidal lock at Miraflores, as compared with the location at Sosa?

Mr. STEVENS. My predilection, as I explained yesterday, is in favor of putting locks in any type of canal at Miraflores rather than at Sosa.

Senator KITTREDGE. On the sea-level canal, as recommended by the Board of Consulting Engineers, there are, then, two dams to be built—one at Gamboa, for the purpose of controlling and impounding the flood waters of the Chagres, and the other structure is the tidal lock at Miraflores or Sosa or some point on the Pacific side?

Mr. STEVENS. Yes, sir.

Senator KITTREDGE. And I understand you to say there is nothing in either of those propositions presenting any unusual difficulties?

Mr. STEVENS. I do not think so. My preference, as I explained, for placing artificial works farther inland was largely on account of the military point of view.

Senator KITTREDGE. Yes; I so understood you. On the lock canal, with the elevation recommended by the minority of the Board of Consulting Engineers, you have the dam and triple locks at Gatun, which you have described; then you eliminate the dam at Gamboa, which is recommended by the Board in favoring the sea-level canal. You have a lock at Miraflores of about 30 feet?

Mr. STEVENS. I think that is at Pedro Miguel. They are both together, within a mile or so.

Senator KITTREDGE. Well, in that vicinity, I mean—Miraflores or Pedro Miguel?

Mr. STEVENS. Yes, sir.

Senator KITTREDGE. And then a duplicate lock in the vicinity of Ancon or La Boca, of an elevation of 55 feet?

Mr. STEVENS. Yes, sir.

Senator KITTREDGE. That is right, is it?

Mr. STEVENS. Yes, sir.

Senator KITTREDGE. The duplicate lock means the construction of three dams, which you described yesterday. Is that right?

Mr. STEVENS. Yes, sir.

Senator KITTREDGE. And the aggregate length of those dams is what?

Mr. STEVENS. I do not remember that I gave the aggregate length. I think the longest would be about three-quarters of a mile, across the valley of Rio Grande; another, between the two mountains, Sosa and Ancon, about one-third of a mile; and the third, from Ancon to what is called the "Corozal Hills," which would be, I should judge, about a mile or a mile and a quarter; altogether making, say, probably two miles and a quarter. That is only a general statement, judging from the map.

Senator KITTREDGE. I understand.

Mr. STEVENS. I have walked over the ground and been over it, of course.

Senator KITTREDGE. That is sufficient for the purpose. What is the character of the soil at the point of these two dams?

Mr. STEVENS. It is clay.

Senator KITTREDGE. What do you say about the foundation there, as compared with the foundation at Gatun?

Mr. STEVENS. I should say that the material shows that it is impermeable in both places. The rock, of course, is comparatively near the surface through this section of the country down there at this particular place—that is, at Sosa, and all through that country.

Senator KITTREDGE. Do you propose to go down to the rock with the dams at the points that you have described?

Mr. STEVENS. No, sir.

Senator KITTREDGE. Then the distance to the rock in the plans adopted by the minority is of no special significance?

Mr. STEVENS. I think not.

Senator KITTREDGE. And is it your judgment that the material upon which the foundation of those dams would be laid is substantially the same as at Gatun?

Mr. STEVENS. Well, I suppose that no two materials—

Senator KITTREDGE. I mean so far as stability is concerned?

Mr. STEVENS. Yes, sir.

Senator KITTREDGE. I read now from page 29 of the majority report, or the report of the Board of Consulting Engineers, as follows:

The dam at La Boca, between San Juan Point and Sosa Hill, unless carried down to bed rock at that location, would be placed upon a far worse foundation even than that proposed at Gatun or Mindi.

What do you say about that?

Mr. STEVENS. I say that is their opinion; it is not mine.

Senator KITTREDGE. I am asking you for your opinion, of course. That is the purpose of this inquiry—to find out what you think about it.

Mr. STEVENS. I do not think so.

Senator KITTREDGE. "The La Boca site," I continue to read—

is one covered by an ooze of mud and silt, with some sandy material overlying the rock. It is practicable to construct here an earth dam, with a heavy masonry core running down to bed rock, whose stability would be beyond question. Such a structure would be far more costly than a great amount of earth placed upon the mud and silt forming the natural bottom of the Rio Grande

estuary. Unless some feature equivalent to that of a heavy masonry core characterizes the design of the dam at this point, or unless resort be made to dredging down to bed rock or near to it and refilling with suitable material, or an earth dam at this location be made very massive, it would, at this location, be in grave danger of being pushed bodily out of place by the pressure due to the head of water in the reservoir.

Is that your opinion?

Mr. STEVENS. My opinion is that the saving clause is right there—"or if it was made of massive construction."

Senator KITTREDGE. Then do you approve of that suggestion, or do you differ with it?

Mr. STEVENS. I approve of this—that if the dam was made of large size it would be sufficient. I would not undertake to put a little, small, narrow, thin dam in there and suppose that it would stay. I would not do that anywhere, even on solid rock.

Senator KITTREDGE. I continue to read, as follows:

The United States Government is proposing to expend many millions of dollars for the construction of this great waterway, to serve the commerce of the world for all time, whose very existence would depend upon the permanent stability and unquestioned safety of its dams, and the Board is of opinion that the existence of such costly facilities for the world's commerce should not depend upon great reservoirs held by earth embankments resting literally upon mud foundations or those of even sand and gravel. The Board is unqualifiedly of opinion that no such vast and doubtful experiment should be indulged in; but, on the contrary, that every work of whatever nature should be so designed and built as to include only those features which experience has demonstrated to be positively safe and efficient.

What suggestions have you to make upon that recommendation?

Mr. STEVENS. None.

Senator HOPKINS. What do you mean by "none?" Do you mean that you approve of that or that you disagree with it in toto?

Mr. STEVENS. Why, certainly; I think it goes without saying that anything that is built should be built to stay.

Senator HOPKINS. Where you differ with them is as to the character of construction that you have indicated at Gatun and at La Boca?

Mr. STEVENS. Yes, sir.

Senator HOPKINS. You think that is of a permanent character and will stand all pressure that may come upon it?

Mr. STEVENS. I should so regard it, else I would not recommend it.

Senator GORMAN. Is your conclusion in that matter based on the same data that were before the board of engineers?

Mr. STEVENS. Yes, sir.

Senator GORMAN. You have no other or different data from what were submitted to them?

Mr. STEVENS. No, sir.

Senator KITTREDGE. I asked you a few minutes ago about the width of the Suez Canal at the base and the surface of the water; and I think you said it was about 150 or 160 feet wide at the bottom, and that the width at the surface of the water would depend upon the slope of the banks.

Mr. STEVENS. That, of course, Senator, is simply a guess. I do not recall. I know in a general way that it is a narrow canal.

Senator KITTREDGE. How does the size of that canal compare with the size of the canal recommended by the majority of the Board of Consulting Engineers?

Mr. STEVENS. To answer that question in fairness to myself, I should have the exact figures, I think.

Senator KITTREDGE. I will be glad to give them to you.

Mr. STEVENS. I do not know whether they are given there or not. We all know from the statement I have drawn off what the exact width of the canal as proposed by the sea-level proposition is. We had it here yesterday. [After being handed copy of majority report.] I am not sure that this even gives a description of the Suez Canal. I know I have it in one of my notes somewhere. [After examining majority report.] I have those here now. I find that I was mistaken; it is a great deal narrower than I said. [Reading:]

It is a sea-level canal without locks, and has a depth of 31 feet 2 inches—

I had that right—

which is now being increased to 34 feet 5 inches. The bottom width in the canal proper varies from 108 feet, where the side slopes are very flat, to 118 feet, where the side slopes are steeper, with garages, or passing places, at intervals for vessels of large size, as such vessels are not allowed to pass each other while both are in motion.

Senator GORMAN. You are now referring to the Suez Canal?

Mr. STEVENS. Yes, sir.

In order to avoid this difficulty, widening operations are in progress, by which the passing places will be united and the bottom width of the canal increased to a minimum of 147 feet 6 inches.

There is probably where I got the "150" in my head. It is being widened to that extent. They do not give the slopes, and they do not give the top width.

Senator KITTREDGE. With that information, are you able to answer my question?

Mr. STEVENS. Now, you will bear in mind that at present—or do you want to take it after the widening is done?

Senator KITTREDGE. After the widening is done.

Mr. STEVENS. I think that canal is about 90 miles long. The average will be 147 feet and the depth 34 feet 5 inches. Out of the 49 miles of the Panama Canal we have 21 miles of 150 feet width at the bottom—almost exactly the same as the Suez. Then we have 18 miles of 200 feet width; then we have 3.9, say, 4 miles, of 300 feet width, and 4.7 miles of 500 feet width.

Senator GORMAN. This is the sea-level canal?

Mr. STEVENS. Yes, sir. So, as regards width, something like 40 per cent of the Panama Canal will be of the same width as the Suez Canal.

Senator KITTREDGE. That canal has been successful in its operations, with the width that you have stated?

Mr. STEVENS. Oh, yes.

Senator KITTREDGE. I call this to your attention in connection with your statement, as I understood it yesterday afternoon, that the sea-level canal recommended by the Board of Consulting Engineers was in your judgment too narrow for successful operation; that you would have to haul your vessels up and await the passage of a ship going in the other direction, etc.

Senator HOPKINS. That is what they do on the Suez Canal, is it not?

Senator KITTREDGE. I understand that.

Mr. STEVENS. I think the conditions are entirely dissimilar.

Senator KITTREDGE. That is just the point I was getting at.

Mr. STEVENS. Yes, sir.

Senator KITTREDGE. In what respect are they dissimilar?

Mr. STEVENS. I think the curvature of the Panama Canal is greatly in excess of that of the Suez Canal. That can be determined, of course, by getting a correct map of the Suez Canal.

Senator KITTREDGE. Let me ask you, right there, this question: Where there is any curve in the canal at Panama the canal is wider, is it not?

Mr. STEVENS. I do not understand that it is, under the sea-level proposition. The lock canal does not propose any curve at all.

Senator KITTREDGE. Are you quite sure that under the sea-level proposition, where there may be a curve, the canal proper is no wider?

Mr. STEVENS. If I should build such a canal, I should certainly make it wider. It would be absolutely necessary. But I can not say whether, in their details, they have taken that into consideration or not. It certainly should be wider, of course; there is no question about that.

Senator KITTREDGE. Yes. So that, taking into consideration whatever curve there may be, the canal is enough wider to make—

Mr. STEVENS. It must be made wider, certainly. What I referred to in regard to the conditions being different—

Senator KITTREDGE. So that in that regard the point that you suggest may not be well taken; or is it?

Mr. STEVENS. That would depend on the amount that you widened it, of course. There is a certain point that you can widen it to where your curve disappears. If you will allow me to finish in regard to Suez—

Senator KITTREDGE. Certainly.

Mr. STEVENS. This is merely a suggestion, but I think it carries weight. At Suez the canal is dug through a low, sandy country—a desert—with little or no rainfall, and very hot all the time. Aden, on the Red Sea, at the eastern terminus, is probably the hottest place that is inhabited in the world, so far as we have any records.

There is very little rainfall; the records will show what it is. There are no streams entering it. There are no torrential rains—nothing of the sort. It is simply a channel between the two seas—through a flat, sandy desert. I believe the deepest cutting is not over 90 feet.

Here we are constructing a canal through a range of mountains, in a country where the rainfall ranges from 135 inches to 65 at either end.

Senator KITTREDGE. That is, 135 inches at Colon?

Mr. STEVENS. Yes, sir.

Senator KITTREDGE. And 65 at Panama?

Mr. STEVENS. Yes, sir; with numberless large and small mountain torrents—some of them, in flood times, veritable rivers—which must be taken care of, many of them coming directly into the canal, carrying in, as they must inevitably, silt, perhaps trees, mountain debris of all sorts, rocks, bowlders, etc.; so that I hardly think a comparison between the canal at Suez and one of the same dimensions at Panama is a fair one. That is the point that I wanted to make.

If you will allow me, I will say this at this point, not in the nature of an examination, but more of an explanation that is due to me: As I said yesterday, I do not pose as being the expert of the Canal Commission, or anybody's expert. The work of getting the design of the canal was practically taken out of my hands. You will all admit that that is fair to me.

Senator KITTREDGE. Certainly it is.

Mr. STEVENS. So that when I say I do not know definitely about some point, I am honest in it. I am not trying to "side step." It is simply because I do not know. I understand that many navigators, canal experts, canal engineers, and maritime men claim that a curve in a canal is a mistake. (Now, this is something, of course, that does not apply to a lock canal any more than it does to a sea-level canal; it is without prejudice to any type.) They say that instead of having curves, as we lay them out on a railway, a long, swinging distance, to subtend an angle, the two tangents of the straight line should be brought to a point, you see; just the same as a man would walk to a street corner and then turn an angle right at that point instead of making a long swing.

Then, at that point, the prism of the canal should be widened inside of the intersection of these two tangents, so that, in effect, instead of the ship making a rounding curve, changing her tiller all the while, she follows those range lights (supposing that there are two range lights that she is sailing for, for the central line of this canal) until she gets to a certain point where those range lights change. They change instantly. Then she throws her tiller all at once and makes her turn just as quickly as she can, and goes on her new course.

These men claim that that is the way to navigate a canal. I talked with several members of the advisory board while they were on the Isthmus, particularly Mr. Hunton, who was the chief engineer of the Manchester Canal; and I find on talking with some of our men in this country, particularly Mr. Ripley, who was also a member of the advisory board, that they recommend it very strongly; and it would seem to me that there may be force in that. I understand, if I read the minority report right, that they considered it entirely a matter of detail, as it did not affect the cost of the canal particularly.

So when we speak of curvature we must recollect that it is not curvature under that plan; it is simply an abrupt turn. Of course the ship will drift a little under her steerage way, but the effort is made to make her turn at one point. I have noticed, too, in entering harbors, that a vessel never makes a long swing when she comes from one course to the other. She goes where she goes on that course, and then she turns and goes the other way.

I just mention that, thinking that it may be of interest to you gentlemen. It does not have any particular bearing on the type of the canal one way or the other.

Senator KITTREDGE. We are glad to hear your suggestion, of course.

Mr. STEVENS. I can see this, though, without being a seaman, and I think we all can, that with range lights on a series of broken courses of straight lines it would be much easier to handle a ship around an angle than it would to undertake to make a gradual turn of that ship in a narrow channel.

Senator KITTREDGE. That suggestion contemplates the running of boats at night, I understand?

Mr. STEVENS. Oh, I should suppose that if you built a canal at Panama you would build it to operate through the twenty-four hours. I do not see how you could well do otherwise.

Senator MORGAN. In the case that you mention the thing that the ship most needs for safe navigation is turning room at the intersection of these angles?

Mr. STEVENS. Yes, sir.

Senator MORGAN. That is the proposition?

Mr. STEVENS. Yes, sir.

Senator MORGAN. There is something about this south end of the canal that I have not quite straight in my mind, and I want to see if I am right about it. Miraflores is virtually at the foot of the hill—the foot of the ridge?

Mr. STEVENS. Yes, sir.

Senator MORGAN. Am I right about that?

Mr. STEVENS. Yes, sir. It is really, Senator, about a mile or a mile and a quarter from where the bottom sinks—from the lock at Pedro Miguel.

Senator MORGAN. And from that point out to sea it is what we call level—

Mr. STEVENS. It is tide flats. The tide practically comes up at high tide to Miraflores.

Senator MORGAN. They are tide flats?

Mr. STEVENS. Yes, sir.

Senator MORGAN. These two proposed routes, the sea-level canal and the lock canal, both go to Miraflores?

Mr. STEVENS. Yes, sir.

Senator MORGAN. And they diverge at Miraflores, or near there?

Mr. STEVENS. Yes, sir.

Senator MORGAN. One goes between Sosa Hill and Ancon—that is the sea-level canal—and the lock canal goes to the westward of Sosa Hill?

Mr. STEVENS. Yes, sir.

Senator MORGAN. And then out to the sea, both of them; and you have stated that a little stream of water, or river (as they call them out there), passes between Sosa Hill and Ancon?

Mr. STEVENS. I do not think I stated that. If I did, it is incorrect. There is not; no, sir.

Senator MORGAN. It is marked on the map as going through there—the Quibadal, or something like that.

Mr. STEVENS. Between the mountains?

Senator MORGAN. Between Sosa and Ancon.

Mr. STEVENS. Oh, no; that is a mistake.

Senator MORGAN. It is a mistake?

Mr. STEVENS. Yes, sir.

Senator MORGAN. I so read it on the map.

Mr. STEVENS. I am over that ground every day of my life when I am in Panama, and I do not think there is even a culvert there.

Senator MORGAN. Now, take the country from the gap between Sosa Hill and Ancon and run back, now, to Miraflores, in the straightest line you can make—what sort of a country does that line pass through?



Mr. STEVENS. It passes through a low, swampy country, covered with mangrove brush, with the exception of one stretch that I presume is about 2,000 feet in length, measured along the line.

Senator MORGAN. The whole distance, then, or nearly the whole distance, between this gap which we speak of and Miraflores, through which the sea-level canal is proposed to run, is a swampy country?

Mr. STEVENS. With the exception of this half mile of rock.

Senator MORGAN. A half mile of rock?

Mr. STEVENS. Yes, sir; that is, rock which comes above the surface.

Senator MORGAN. That occasions the building, as I understand it, of an embankment practically reaching from Miraflores to the gap between the two hills?

Mr. STEVENS. Yes, sir.

Senator MORGAN. About what is the length of that embankment?

Mr. STEVENS. It is about 4 miles.

Senator MORGAN. And it runs through a flat country, with the exception of this rock hill of which you speak?

Mr. STEVENS. Yes, sir.

Senator MORGAN. One of these swampy countries. What would be a safe embankment there to protect a sea-level canal for a distance of 4 miles?

Mr. STEVENS. I should say that the material dredged from the canal itself, put in there with hydraulic pumps, would be all right—a good, wide levee.

Senator MORGAN. What would be the probable height of such an embankment?

Mr. STEVENS. It would only be necessary to carry it high enough to keep the tidal waters out—I should say not to exceed 6 feet.

Senator MORGAN. By "tidal waters" you mean the waters that come from the sea?

Mr. STEVENS. Yes, sir.

Senator MORGAN. Would that embankment be necessary on both sides of the canal going to this gap?

Mr. STEVENS. No; I do not think it would. Some provision, however, should be made to take care of the waters that come in from the east side, the small streams that come in.

Senator MORGAN. That is what I wanted to get at.

Mr. STEVENS. Yes, sir.

Senator MORGAN. They are numerous?

Mr. STEVENS. Well, the country there is all cut up by little bayous and by water that comes from the hills. I do not think there are over a couple of streams that amount to much in their size.

Senator MORGAN. But they are very crooked in their course?

Mr. STEVENS. Yes, sir; very.

Senator MORGAN. And have to be shut out of the canal?

Mr. STEVENS. Yes, sir; either shut out or brought in so that they would not cut the walls of the canal at all.

Senator MORGAN. The canal there would be 40 feet below sea level?

Mr. STEVENS. Yes, sir; that is what they figured on.

Senator MORGAN. And about what would be the width on their proposition?

Mr. STEVENS. They figured on 300 feet.

Senator MORGAN. Three hundred feet?

Mr. STEVENS (after referring to profile). No; 200 feet.

Senator MORGAN. A canal 200 feet wide?

Mr. STEVENS. Two hundred feet wide on the bottom.

Senator MORGAN. On the bottom, and 40 feet below mean tide?

Mr. STEVENS. Yes, sir.

Senator MORGAN. Now, the eastern side of that canal would have to be protected for about 4 miles in order to shut out those waters that come from the small streams?

Mr. STEVENS. Well, I would not say that. I say that on the eastern side there is about 4 miles where the water comes in.

Senator MORGAN. Yes.

Mr. STEVENS. It is possibly the intention of the sea-level engineers to allow that water to come directly in it. I do not know whether the report bears on that or not. I do know that they propose to make a dike or levee to keep the tidal waters from coming into the side of the canal.

Senator MORGAN. That would be on the western side of the canal?

Mr. STEVENS. Yes, sir.

Senator MORGAN. What would be the length of that dike?

Mr. STEVENS. The same length, practically.

Senator MORGAN. Four miles?

Mr. STEVENS. Yes, sir.

Senator MORGAN. Then you would have 4 miles of dike on either side of the canal?

Mr. STEVENS. You would have if you diked out the fresh water.

Senator MORGAN. If you shut out these waters?

Mr. STEVENS. Yes, sir.

Senator MORGAN. In order to keep the channel of the canal free of the intrusion of outside waters, you would have to have a dike on both sides?

Mr. STEVENS. For about 4 miles.

Senator MORGAN. About 4 miles in extent?

Mr. STEVENS. Yes, sir—that is, on either side—in the neighborhood of 7 or 8 miles, counting both sides.

Senator MORGAN. Together?

Mr. STEVENS. Yes, sir.

Senator MORGAN. Now take the dike on the western side; that is intended to shut out the tides—the sea waters?

Mr. STEVENS. Yes, sir.

Senator MORGAN. Would it not be necessary to have that dike very strong, very compact, and very firm, so as to meet the possible inflow of waters ahead of a storm or wind on the top of a tide?

Mr. STEVENS. I do not think, Senator, that that would require anything more than the earth construction, for this reason: The way I would build that would be, first, to put in what I would call a "dipper dredge;" then I would cut a comparatively narrow channel through the swamp near the west line of the canal, you see, simply to float my larger dredge. Of course, with the arm of the dipper I would throw that material over on the bank. That would form a small wall of earth between the location of the dredge and the country back. Do I make myself clear?

Senator GORMAN. Perfectly.

Mr. STEVENS. That would be what I call my "dipper dredge"—one of those that come down this way, then swing over and drop the material off at the side.

Then I would follow that up with a big hydraulic dredge in this channel, and pump the balance of the material taken from the canal right over this small dike that was thrown up by the smaller dredge, and let that material go back and take its own slope. Naturally, with the amount of water in it, it would take a slope of probably about 1 in 50, perhaps 1 in 40, or 1 in 30. In other words, it would be very, very flat. Now, if you have noticed it, the best protection that nature makes anywhere in the world against tides, against current wash, is a flat slope made of almost any material.

Senator GORMAN. Is it better than riprap?

Mr. STEVENS. Yes; it is better than riprap. Fine sand, fine beach sand, lying on a very light slope, is the very best protection you can get from sea waves, simply for this reason: The waves will run up on it, and will be led up, as you may say, until they lose their force.

Now, it has generally been found, in the last few years, by the best construction engineers, that instead of using abrupt masonry walls to withstand the force of mountain currents or the heavy beating of waves, a much lighter slope is more effective, for that reason.

Of course there will be a vast amount of material, and those dikes could be built at least twenty times thicker and stronger than would probably ever be necessary; but the outside slope, allowing it to take its own slope that way, would be so light that I do not think storms would have any effect on it, particularly as it is landlocked and there is no way for storms to get at it. It would be simply the effect of tide wash.

Senator MORGAN. Is not the pressure upon a flat embankment, such as you speak of across that 4 miles of area, identical in principle with the pressure that would be exerted by the waters upon the dam at Gatun?

Mr. STEVENS. With the exception that there would be a rush of the tide at this point, the absolute weight of the water, of course, would be the same under any circumstances, depending on the depth.

Senator MORGAN. Would the pressure from the tide on that embankment be anything like equivalent to the pressure on the Gatun dam from the waters connected with the lake?

Mr. STEVENS. Oh, no; because of the greater depth of the Gatun dam, which gives greater pressure.

Senator MORGAN. The reason being, I suppose, that the tide in reaching that point would have to rise very considerably in level before it got to it?

Mr. STEVENS. Oh, yes. The tide never would rise more than 4 or 5 feet alongside of this levee.

Senator MORGAN. Not more than 4 or 5 feet?

Mr. STEVENS. That is as I remember it: it is very little. This levee that they speak of is rather an insignificant affair, you know.

Senator MORGAN. It is?

Mr. STEVENS. Oh, yes. There would be no sense in building a high dam there or anything like that. That feature is perfectly practicable.

Senator MORGAN. The lock canal proposes to go to the westward of this proposed embankment, which would carry it to the westward of Sosa?

Mr. STEVENS. Yes, sir.

Senator MORGAN. Would the lock canal have to be protected in the same way?

Mr. STEVENS. Oh, no.

Senator MORGAN. It would not?

Mr. STEVENS. In the case of the lock canal there would be no particular channel through the greater part of that section, you know, because the 55-foot depth would extend there for a width of probably a mile and a half.

Senator MORGAN. And the lock canal would go through a lake, whereas the sea-level canal would go through the earth?

Mr. STEVENS. Yes, sir; that is, according to the minority report.

Senator MORGAN. Yes, I know; with embankments on either side to protect it wherever they thought it was necessary to protect the canal against the intrusion of water?

Mr. STEVENS. Yes, sir.

Senator MORGAN. That is the situation. I just wanted to get it clear in my mind.

Senator KITTREDGE. Mr. Stevens, if a sea-level canal could be constructed at the same cost and in the same time that a lock canal could, as recommended by the minority of the Board of Consulting Engineers, which canal would you prefer?

Mr. STEVENS (after a pause). I am afraid I would prefer the lock canal, Senator.

Senator KITTREDGE. Why?

Mr. STEVENS. Because I think that the passage of ships would be quicker. I think the cost of operation would be no more—if more, very little—in case of a lock canal. I think the cost of maintenance of a lock canal would be very much less. I think the passage through a lock canal will be safer. I think, in case future developments should require enlargement, the lock canal can be made of much larger capacity very much more quickly and cheaply than the sea-level canal. I recollect having some figures made not very long ago, I think since I came to Washington—I was thinking of them at noon—which were to this effect:

With a sea-level proposition, taking the same unit prices which are allowed by the full board, without any dissent, the cost of widening a sea-level canal of 49.7 miles 1 foot—you understand what I mean, simply widening it 1 foot, 12 inches—would be \$870,000. In other words, to widen this entire canal from 150 feet, which is its width for the greater portion of its length, 100 feet would cost \$87,000,000.

Senator HOPKINS. Eighty-seven million dollars?

Mr. STEVENS. Yes, sir.

Senator GORMAN. To widen it the entire length 1 foot?

Mr. STEVENS. One hundred feet, making it 250 feet wide instead of 150; that is, widening it 100 feet. Have I made that clear?

Senator KITTREDGE. Yes; we understand your position about it.

Senator GORMAN. Mr. Stevens, as I understand you, you are in favor of the lock canal of 85 feet elevation?

Mr. STEVENS. I am in favor of that as between the two reports; yes, sir.

Senator GORMAN. I thought that was your conclusion, that you preferred that to any other elevation.

Mr. STEVENS. I think I said yesterday that I differed a little with the minority at the south end in regard to the dam there—not that I

questioned the stability of the dam, but that for military and sanitary purposes, particularly military purposes. If the canal is not to be made neutral I would prefer putting my artificial works at Miraflores and Pedro Miguel.

Senator GORMAN. How much would that raise the elevation of the canal?

Mr. STEVENS. As I have stated, about \$6,000,000.

Senator GORMAN. No; I mean the elevation.

Mr. STEVENS. Instead of the high summit level coming clear through here I would stop it here [indicating] and make it sea level from here out, instead of sea level to here [indicating].

Senator GORMAN. That would still leave your summit level at 85 feet?

Mr. STEVENS. Yes, sir; the reason I favor that is because of the point brought out yesterday—the control of the floods of the Chagres.

Senator GORMAN. Yes. That is, of course, more a military proposition than anything else?

Mr. STEVENS. Military and sanitary; yes.

Senator GORMAN. Military and sanitary. But in either case, whether it was done at that line or at the point proposed by the minority of the Commission, the central point of the success of the whole proposition is the dam at Gatun, as I understand you?

Mr. STEVENS. Yes, sir.

Senator GORMAN. And you are perfectly clear in your own mind that that can be controlled with an earthen dam of the description which you have given?

Mr. STEVENS. Yes, sir; I am satisfied of it.

Senator GORMAN. That would go down to within 200 feet of rock?

Mr. STEVENS. Yes, sir.

Senator GORMAN. Now, will you not explain to me—I can not get that very clear in my head from this map—the location of the three locks to overcome that elevation from the sea level? Is this east?

Mr. STEVENS. That is north.

Senator GORMAN. Where are the three locks by which you overcome the difference in elevation between the sea level and the surface of the water here?

Mr. STEVENS. This map is not very clear. For instance, it shows a little creek running in there. I do not recall any such creek. Now, you see, that [indicating] indicates, in engineering or surveying parlance, swamps. The map shows swamps in there. As a matter of fact, there is nothing of the kind there. There is simply room for the railway track and a row of small houses, not over 100 feet. This hill commences to rise very fast up to 85, 90, and 95 feet.

Senator GORMAN. Yes.

Mr. STEVENS. And there is where they propose to put the locks—right through that high ground there.

Senator HOPKINS. Is that for the sea-level canal?

Mr. STEVENS. No, sir; for the lock canal. It is the point where that gentleman's house is situated—you recollect it there, close to the station. His house is right on top of the high hill, about there [indicating].

Senator GORMAN. Under that plan the foundation of your lower lock must be, of course, below the sea-level part of your canal?

Mr. STEVENS. Yes, sir.

Senator GORMAN. What sort of a foundation can you get for this immense structure?

Mr. STEVENS. Clay.

Senator GORMAN. You would trust that lock on a clay foundation, would you?

Mr. STEVENS. Yes, sir.

Senator GORMAN. A lock 100 feet in width and 1,000 feet in length?

Mr. STEVENS. Nine hundred and ninety-five feet, to be exact; yes, sir.

Senator GORMAN. Yes. Do you think that is safe?

Mr. STEVENS. Why, there is an endless amount of buildings that weigh a great deal more than that lock—twelve, fifteen, and twenty stories high—placed on similar foundations.

Senator GORMAN. Is that so?

Mr. STEVENS. In fact, in Chicago the foundations are very much worse, you know.

Senator GORMAN. Now, following that up—

Mr. STEVENS. You see, the lock has a very broad base.

Senator GORMAN. Yes; it has a broad base. Is it to be made of stone or concrete?

Mr. STEVENS. Concrete.

Senator GORMAN. How does that compare in weight with stone?

Mr. STEVENS. They are about the same. Both of them weigh about 170 pounds to the cubic foot.

Senator GORMAN. Would you build on piles there?

Mr. STEVENS. Not unless something developed there that I do not know of now. In that case piles would, of course, be used.

Senator GORMAN. That first lock would raise you 35 feet, or whatever it is?

Mr. STEVENS. Yes, sir. I am not certain, Mr. Senator, without going to the records and without going to the borings, but what that lock will be constructed in indurated clay—soft rock.

Senator GORMAN. I see. The next lock is what distance south of that?

Mr. STEVENS. They come right together, like this [indicating].

Senator GORMAN. But you have to have a space between them, do you not?

Mr. STEVENS. The vessels will go directly from one lock to the other. There is only a gate between.

Senator GORMAN. But in the case of a ship 1,000 feet in length, or 800 feet in length, you have to have a basin between the two locks, do you not?

Mr. STEVENS. Oh, no; you go right from one gate to the other—from one lock to the other.

Senator GORMAN. Is that the fact with all three of them?

Mr. STEVENS. Yes, sir.

Senator GORMAN. Those are to be double locks?

Mr. STEVENS. Yes, sir.

Senator GORMAN. You mean by that side by side?

Mr. STEVENS. Yes, sir; and these locks up here—this hill is practically all indurated clay. There is only a very thin sheet of anything else.

Senator GORMAN. There is no question about the foundation, then?

Mr. STEVENS. I should not think there was, Senator; no, sir.

Senator HOPKINS. You think the foundation is better than the foundation upon which those immense buildings in Chicago are constructed?

Mr. STEVENS. Why, I know it, as far as a man can know anything. You know, of course, what the Chicago material was.

Senator GORMAN. In constructing this dam I understand that you have to cut a channel around here, around the side of the hill, to prevent the Chagres River flowing over the canal construction, do you not?

Mr. STEVENS. Not at that point.

Senator GORMAN. Do you construct a dam?

Mr. STEVENS. You see that little point there, do you not?

Senator GORMAN. Yes.

Mr. STEVENS. There is a large hill there, and it is proposed to put it through there.

Senator GORMAN. And change it from its present channel?

Mr. STEVENS. Well, there are several channels. There are two channels which are not shown there; but there is another channel here, which is what is called the west diversion. Then there is a channel here, and a small channel through here. That map, you know, is very general.

Senator GORMAN. I see; so that you change the whole flow of the river when you construct this dam across there?

Mr. STEVENS. Yes, sir.

Senator MORGAN. I would like to point out to you this stream we were talking about a while ago. Here is the little stream I was speaking of [indicating]. It originates here, right at the coast.

Mr. STEVENS. That stream does not run through there. There is nothing but the sluggish, swampy ground here, where cattle go out and feed and walk up to their knees in water. This is a wagon road, which runs from Panama out to La Boca. I go over it almost every day, walking or riding, for exercise in the morning, and my recollection is that there is not even a culvert that big there [indicating].

Senator MORGAN. There is no stream there, then?

Mr. STEVENS. Why, you would not know it was a stream. It is a marsh, and undoubtedly the drainage from it goes that way [indicating]. There is nothing that comes through.

Senator HOPKINS. In the case of a sea-level canal is there any dam on the Gatun side of the canal?

Mr. STEVENS. No, sir.

Senator HOPKINS. None whatever?

Mr. STEVENS. There are some levees to keep the side water from coming in at different points.

Senator HOPKINS. What are they? Describe them, if you please. That is the matter that I have not clear in my mind.

Mr. STEVENS. I can not give you the numbers nor the location of them. That is a very big, wide, flat, swampy country down there, with these influent streams coming at different points into the main Chagres River. Certain of those streams, particularly from Bohio down to the coast, they propose to take through new channels. Some are new and some are old. Some the French laid out, which they proposed to enlarge and complete. For instance, we will assume that that stream [indicating] comes down in here somewhere. To

keep it out of the canal they would dig a channel right along here, parallel with the canal, carry it off across the country here 5 or 6 miles, and run all of those streams into it. The banks of that little diversion canal, as we will call it, would at some places be flat; they would be low banks, and in time of high water the water would tend to come out over as it comes out over the bank of ponds in floods.

Now, here is an artificial dike along here. In other words, we raise the natural bank of that stream to keep the water confined to the channel. There are a number of those places, and when they submit maps (which I understand we should have in two or three days, possibly before the end of the week) they will outline all of those on the maps.

Senator HOPKINS. That is all that I wanted to ask you. I did not have that matter in my mind as clearly as I wished.

The CHAIRMAN. Mr. Stevens, I think we are through with you, so far as I know, and we are very much obliged to you.

Senator MORGAN. We congratulate you, sir.

Mr. STEVENS. I want you to understand my position, gentlemen. I have talked here a great deal, and I am not a very good talker, but—

Senator KITTREDGE. I am not so sure of that.

Mr. STEVENS. If I had been directed a long time ago to study up the conditions and formulate a plan absolutely (as perhaps no one man ought to be), I would have been very much more sure in many of the statements I have made. But the statements that I have made as absolute, in my opinion, I am ready to stand for as far as my opinion goes, and I think you will find that some pretty good engineers are of the same opinion. I want to thank you for your courtesy.

The CHAIRMAN. We thank you.

Senator GORMAN. In view of that statement, let me see if we have your exact idea—or if I have, at least. It is that with the knowledge you have obtained down on the Isthmus, from your examination, if you were the umpire of this matter, you would make no change in the recommendations of the minority board except as to the lock nearest Panama?

Mr. STEVENS. And one other thing, Senator, which I think I have brought out. I would not start for two or three years to build the breakwater at Colon.

Senator GORMAN. Yes.

Mr. STEVENS. There are \$5,000,000 in that estimate that might possibly be saved. I would dig my channel, or enough of it to enable me to make an experiment through two or three stormy seasons; and if that channel remained open, or reasonably so, so that at moderate cost it could be kept open, I certainly would not throw the money into a breakwater.

Senator GORMAN. With those two exceptions you recommend that project?

Mr. STEVENS. I would recommend that project, and I will go further and say this—a man can not say any more—that if I had to build that canal with my own money, as between the two plans I should take the high-level plan, even if I expected that my family to come after me for generations would operate it.

Senator GORMAN. That is very clear.



The CHAIRMAN. It has been stated here within the last few months, Mr. Stevens, that political influences have existed in regard to the appointment of men on the Isthmus—perhaps before you came to the Isthmus, Mr. Stevens; possibly since. Have you any knowledge of any employees among your people there now who were appointed there through any political influence?

Mr. STEVENS. I have not. I can only speak directly for my own appointees, of course. There has not been an appointment that I know of, nor a man on my pay rolls, that has either been placed there through political influence or has retained his position through political influence, nor has there been any attempt on anyone's part to retain him through political influence.

The CHAIRMAN. I notice that in this article of Mr. Bigelow's, which has become somewhat celebrated, he speaks of certain parties being there from political influence. I think "Senatorial influence" was the expression he used. Do you know anything about that?

Mr. STEVENS. Well, I denied that over my signature very strongly. I could not put it any more strongly in the English language.

The CHAIRMAN. And you know nothing of anything of the kind?

Mr. STEVENS. I know nothing of anything of the kind. There is not the slightest thing in the world of that kind that I know of, and I would know it if there was anything like that.

(Mr. Stevens was thereupon excused, with the thanks of the committee; and the committee adjourned until Friday, January 26, 1906, at 10.30 o'clock a.m.)

# ISTHMIAN CANAL.

COMMITTEE ON INTEROCEANIC CANALS,  
UNITED STATES SENATE,  
*Friday, January 26, 1906.*

The committee met at 10.30 o'clock a. m.

Present: Senators Millard (chairman), Kittredge, Dryden, Hopkins, Morgan, Carmack, Gorman, and Simmons.

Also Theodore P. Shonts, esq., chairman of the Isthmian Canal Commission; David W. Ross, esq., general purchasing officer, and E. S. Benson, esq., general auditor of the Commission.

(Note.—On Tuesday, January 23, and Wednesday, January 24, Mr. John F. Stevens, chief engineer of the Isthmian Canal Commission, appeared and continued his statement before the committee. His testimony will be printed hereafter.)

## STATEMENT OF THEODORE P. SHONTS, ESQ., CHAIRMAN OF THE ISTHMIAN CANAL COMMISSION.

The CHAIRMAN. Mr. Shonts, will you state your name and residence, please?

Mr. SHONTS. Theodore P. Shonts, Washington, D. C.

The CHAIRMAN. What has been your business, Mr. Shonts, for the past eight or ten years?

Mr. SHONTS. I have been in the railroad business for the last twenty-five years.

The CHAIRMAN. In what way were you engaged in the railroad business prior to your coming to the Commission?

Mr. SHONTS. Immediately prior to coming to the Commission I was president of the Clover Leaf Railroad and of the Detroit and Toledo Shore Line Railroad, which is owned jointly by the Clover Leaf and the Grand Trunk.

The CHAIRMAN. The Clover Leaf is the road running from St. Louis to Toledo?

Mr. SHONTS. The Clover Leaf runs from Toledo to St. Louis, and the Detroit and Toledo Shore Line runs from Toledo to Detroit.

The CHAIRMAN. Are you still president of the Clover Leaf Road?

Mr. SHONTS. Yes, sir.

The CHAIRMAN. And does that in any way interfere with the business of the Commission?

Mr. SHONTS. No, indeed.

The CHAIRMAN. You are now the chairman of the Commission?

Mr. SHONTS. Yes, sir.

The CHAIRMAN. When were you appointed?

Mr. SHONTS. April 3, 1905.

The CHAIRMAN. In what way were you engaged in railway work prior to coming to the Commission?

Mr. SHONTS. I have been engaged both in the construction and operation of railroads.

The CHAIRMAN. Well, you could not have been engaged in the construction of railroads for twenty-five years?

Mr. SHONTS. Well, no; I have not been engaged in the construction of railroads for twenty-five years, but I meant to cover the point by saying that I have both built roads during the twenty-five years and operated roads during that period.

Senator HOPKINS. To what extent? Go on, in your own way, and state to what extent.

Mr. SHONTS. My first construction work was in southern Iowa building part of what is known as the Keokuk and Western, owned by the Burlington system; also with the Albion and Centerville, which is still independent property; afterwards, in the construction of portions of what is now part of the Iowa Central; later, much of the Indiana, Illinois and Iowa Railroad, almost all of which was built under my personal supervision. I operated that railroad for a number of years and then sold it out. Then I purchased a large interest in the Clover Leaf, which I still have. I found that road in very poor physical condition, and began rebuilding it and reequipping it and putting it into shape for economic operation. That work is still going on.

The CHAIRMAN. That work is still going on now?

Mr. SHONTS. Yes, sir.

The CHAIRMAN. You have been connected with the Clover Leaf up to the time that you became chairman of the Commission?

Mr. SHONTS. Yes, sir; I was actively engaged in railroad work when I came with the Commission.

Having to do with your next inquiry, as to whether that interferes with my present duties, I will say that I turned over the active management of those properties when I came with the Commission to the vice-president, who had formerly been traffic manager of the railroad, and he has been in entire charge of the operations since. I have only been on the road four days, all told, since April 1. I have been consulted occasionally about matters of general policy, but of late months I have given no attention to it except to look over the monthly statements of earnings and expenses as they were sent to me once a month.

The CHAIRMAN. But you are still president of the road?

Mr. SHONTS. Yes, sir.

Mr. HOPKINS. But there is nothing in that that interferes in the slightest degree with your present duties?

Mr. SHONTS. No, sir; all the attention I give it is purely nominal, to-day.

Senator GORMAN. Why retain it, then?

Mr. SHONTS. Because of my large personal interest in it.

The CHAIRMAN. You are largely interested in the property?

Mr. SHONTS. Yes, sir.

Senator GORMAN. How does your retention of the presidency of the road promote your interest in it, if you do not give it any attention?

Mr. SHONTS. I will explain that to you. There are times when you might protect your interest by being president, while if you were not president you could not protect yourself.

Senator DRYDEN. You have the right officially to call for certain reports and papers, which as a mere stockholder you would not have?

Mr. SHONTS. Yes; and no trade could be made, or no disposition of

the property, or anything of that kind, where my interests could suffer; or that could not be done so easily while I am president as it might be if I were not president.

Senator HOPKINS. There is a moral influence upon your subordinates that would not exist if you were entirely separated from the road?

Mr. SHONTS. Yes. Then, in addition to the purely selfish motive to which I referred in response to Senator Gorman's question, other people became associated with me at the time that I did because I became identified with the property. The effect of my name on the personnel of the organization, as well as on the market value of the securities, was such that I felt that I ought not, in the interest of those who put their money in at the time I went in, to give up the nominal presidency.

The CHAIRMAN. Mr. Shonts, you, of course, know enough about railroad business and about your present position to know whether your connection with the Clover Leaf road in any way interferes with your business here in connection with the canal?

Mr. SHONTS. Yes. I can say absolutely that it does not.

The CHAIRMAN. That it does not?

Mr. SHONTS. Yes, sir; that it does not.

Senator SIMMONS. You say that you look over the pay rolls every month?

Mr. SHONTS. No, sir; not the pay rolls, but the results of the operations of the road.

Senator SIMMONS. There is a general statement sent to you each month, embodying the operations of the road for that month?

Mr. SHONTS. A statement of the earnings and expenses is sent to me, showing the results of the operation each month. That is the same statement as all other roads have.

Senator SIMMONS. What is that for?

Mr. SHONTS. Every road has that statement of operating expenses and earnings made up each month, together with the statistics showing the results accomplished.

Senator SIMMONS. How much of your time does it take to attend to that?

Mr. SHONTS. About an hour.

Senator KITTREDGE. Where are the headquarters of that road?

Mr. SHONTS. At Toledo.

Senator KITTREDGE. How many miles of road has it?

Mr. SHONTS. Four hundred and fifty-one miles of Clover Leaf proper and 70 miles of the Detroit & Toledo Shore Line.

Senator KITTREDGE. That represents the main-track mileage?

Mr. SHONTS. Yes, sir; the main-track mileage.

Senator KITTREDGE. How often do you go to Toledo?

Mr. SHONTS. I have been four days on the road since the 1st of April, all told.

Senator KITTREDGE. A year ago?

Mr. SHONTS. Yes, sir; since the 1st of April.

Senator KITTREDGE. For what purpose?

Mr. SHONTS. I went over the property.

Senator KITTREDGE. When was that?

Mr. SHONTS. I spent a portion of three days in September and one day since, in November.

Senator KITTREDGE. Do you draw any compensation for your service as president?

Mr. SHONTS. Yes.

Senator KITTREDGE. Do you object to stating what it is?

Mr. SHONTS. No; if it is necessary. I will say this, that when I made the change, and put the active management in charge of the vice-president, I said to him: "I will swap salaries with you." So I gave him my salary as president, and I took his salary as traffic manager, which was \$12,000 a year.

Senator KITTREDGE. And what service do you perform for that compensation?

Mr. SHONTS. Just as I tell you. The only service I perform is when they consult me in regard to matters of broad general policy.

Senator KITTREDGE. The officers of the company occasionally visit Washington?

Mr. SHONTS. Mr. Ross has been in Washington twice, I think, and has met me in New York once or twice.

The CHAIRMAN. Mr. Shonts, will you proceed, now, and state to the committee your present position, and what you are doing with the Commission, since you have taken charge, please.

Mr. SHONTS. Of this canal work?

The CHAIRMAN. Yes.

Mr. SHONTS. I was appointed chairman of the Commission April 3, 1905. I immediately began the reorganization of the forces. We created in Washington what we called the "office of administration," in order to have a headquarters where all reports from each department would come and where the general results could be given out. The office of administration consists to-day of an assistant chief, who has charge of the general correspondence, of the appointment division, of the records, and then we have the office of the general auditor.

The CHAIRMAN. What is the name of that particular officer you spoke of?

Mr. SHONTS. The assistant chief is Mr. W. L. Pepperman.

The CHAIRMAN. Please give the name of each one of the different heads as you proceed, Mr. Shonts.

Mr. SHONTS. The general auditor, Mr. E. S. Benson, has his office here. Mr. Benson has charge of the accounts of every department of the Commission and also of the Panama Railroad. Mr. Benson has in his office here an assistant, Mr. Lewis. He has a deputy auditor of the Panama Railroad in New York, a deputy auditor of the Panama Railroad on the Isthmus, and a deputy auditor of the Isthmian Canal Commission on the Isthmus.

Next is the general purchasing office, with Mr. David W. Ross as general purchasing officer, with headquarters here. Mr. Ross had an assistant purchasing officer here, who has been relieved and is now about to depart for the Philippines. I refer to Major Gallagher, an army officer, who was, when I came here, general purchasing agent for the Commission. I felt that, while he was an earnest and honest and ambitious man, he had not had the necessary training to fit him for the particular duties of this office. I told him frankly that I expected to make a change, but he worked on just as loyally as if it had been the intention to retain him; and he leaves us now because of orders from the War Department. His place will not be filled.

Mr. Ross has a deputy purchasing officer in New York by the name of A. Anderson, who buys for both the railroad and the Commission, under Mr. Ross's instructions. He has a deputy at New Orleans, or an assistant purchasing agent, Mr. S. E. Redfern, and one at Tacoma, Mr. F. H. Haradon. We have also been using an army officer at San Francisco, Mr. Carroll A. De Vol, depot quartermaster at San Francisco. While the title of these gentlemen is "assistant purchasing agent," their duties are almost exclusively those of forwarding agents—to look after the forwarding of the supplies through their ports.

Then, we have a disbursing officer here, Mr. J. G. Jester, who disburses the funds paid in the United States.

The CHAIRMAN. He is located here?

Mr. SHONTS. Yes, sir; that completes the office of administration.

The Commission has its engineering committee here, consisting of Generals Ernst and Hains, Major Harrod, and Admiral Endicott, four members of the Commission who are all engineers. In our organization we appointed them as an engineering committee.

When I came with the Commission the duties had been divided up, giving me as chairman direct charge of the finances, of the accounting, and of the purchasing; giving Governor Magoon direct charge of the government and the sanitation on the Isthmus; giving Chief Engineer Wallace charge of construction and engineering. I had also general charge of all of the departments.

After Mr. Wallace resigned, or about the time of his resignation, the President said to me, "I will expect you to appoint your own engineer and organize on your own lines." I therefore hired Mr. Stevens as chief engineer, and since that time the chief engineer reports directly to me.

Senator GORMAN. You selected Mr. Stevens, did I understand you to say?

Mr. SHONTS. Yes, sir; I selected Mr. Stevens myself, and he has been since that time chief engineer in charge of the engineering and construction work on the Isthmus. He has not been made a member of the Commission as yet.

Governor Magoon, on the Isthmus, has direct charge of government and sanitation. He has Colonel Gorgas who, under him, is the active man in charge of the sanitation or sanitary work.

Formerly the material and supplies department, as it was called, which we now call the material and supplies division, was under a gentleman by the name of Tobey, who reported at the request of Chief Engineer Wallace to Chief Engineer Wallace, in our division of the duties, when I first came with the Commission. Mr. Tobey was a naval officer, and another one of those splendid, hard-working, honest, well-meaning men, but he had not been trained for the very arduous duties connected with the receipt and distribution of the immense amount of materials arriving on the Isthmus. That is the last department that we have been reorganizing.

Senator SIMMONS. Is he located on the Isthmus?

Mr. SHONTS. He is located on the Isthmus.

When Mr. Stevens came with us I made a change (and Mr. Stevens was thoroughly in harmony with my views on the subject), only for the purpose of correct organization, and put the head of the material and

supplies division under the general purchasing officer, so that the supplies from the time the first requisition was made up through what we would call in railroad parlance the general storekeeper, or through the head of this material and supplies division to the purchasing officer, were purchased and sent back and distributed so that all passed through one channel. It was for the purpose of organization only that we put the storekeeper or the head of the material and supplies department under the general purchasing officer, where it is now.

Mr. Tobey was recalled by the Secretary of the Navy. We have secured the services of Mr. Tubby to take his place. Mr. Tubby was general storekeeper of the Great Northern Railroad, and I am told that he was the only man in that position on a great railroad in the United States that reported direct to the president. He was in line for the purchasing agency of the Great Northern Railroad and was considered by many men as in a class by himself in storekeeping work. People laughed at us when we undertook to get him; but we finally secured him and secured him for a salary of \$9,000 a year. Mr. Tubby has already demonstrated the correctness of our theory that a man should be specially trained for any special work if he is going to make a success of it. His savings in every weekly report since that time have been a great deal more than his yearly salary, I think, in the reduction of forces and expenses, and it is going on all the time. Yet the accumulated work on hand that he inherited has been almost cleared up, so that his last letter says that in two or three weeks he will have the back work disposed of.

The disbursing officer on the Isthmus, Mr. E. J. Williams, we secured from the Chicago and Northwestern Railroad. The vice-president of the Northwestern road, under whom Mr. Williams worked, thought so much of him that he gave him a year's leave of absence in order to accept this position with us. He went down to take the place of another naval officer, who was recalled at the same time Mr. Tobey was—Mr. Shafer.

Senator SIMMONS. Does that mean that at the end of the year he is going to quit your employment and go back to this railroad?

Mr. SHONTS. No, sir; I meant that as a testimonial of the high regard his officers on the Northwestern had for him.

Senator SIMMONS. They gave him a year's salary?

Mr. SHONTS. No, sir; but they gave him a year's leave of absence, so that if he did not meet our requirements, or anything went wrong that we did not keep him, he would have a place to go back to at the end of the year. Of course he would not have left his position and come with us if he had not intended to stay with us, provided he suited us. I only mentioned that, as I say, in order to show the high regard in which the Northwestern company held him.

The CHAIRMAN. Now, Mr. Shonts, in a general way, will you give to the committee your understanding of the conditions, and your knowledge of the conditions down there at the present time, or from the time you took possession to the present time, as chairman.

Mr. SHONTS. It took me about two months and a half to get the organization here to a point that I thought I could leave it. I was ready to go down, and had my reservations made to go down on the steamer sailing June 20. We had threshed out not only the organization of our forces, as I have described it to you here, but we had

studied the general situation, and had mapped out several lines of policy that we had inaugurated.

The CHAIRMAN. What we would like to have, Mr. Shonts, is a statement of the conditions in which you found the office when you took charge here and at the Isthmus. What were the conditions at that time? Give us that first and then the other afterwards.

Mr. SHONTS. I will commence with the condition of the records. Probably that will give you as good an idea as anything else.

Senator KITTREDGE. Do you refer now to the records in Washington?

Mr. SHONTS. In the administration office in Washington, yes. I am not going to find fault with any person because—

The CHAIRMAN. Just state what the conditions were.

Mr. SHONTS. The records were in bad shape. The fact is that there were scarcely any records that were promptly available, and our office organization for several months was larger than it is now. We have been able to reduce the force materially the last few months, as compared with what we had the first few months, by reason of having caught up with the back work.

We not only had to create records for the current business, but we had to have a force to bring up the accumulated business; and we had simply to dig it out by main strength from the files of papers. There seemed to be no comprehensive system properly carried out. So that for several months, as I say, we had to have an extra force to get the old business straightened out and put correctly in the files. Our first job, of course, was to take care of our current business. Then, as every important subject would come up, we would have this force go through the records and dig out all papers pertaining to that, from every source that they could find, and abstract them, and put them together, and complete the files, in accordance with the kind of records that we now keep.

Senator DRYDEN. Did that relate to the receipts and disbursements of the Commission?

Mr. SHONTS. I am speaking now of the office records merely, of the papers that came in and out of the office, the correspondence on all sorts of subjects. There was a confusion that existed that very greatly delayed our answering correspondence promptly, and very greatly delayed our getting an exact knowledge of the correspondence in regard to certain important matters, and it frequently happened that papers were discovered that had not been answered and had been there for some months. Some of them had been put in drawers, some of which were not used as files at all, without any notice on them, and we did not know what had been done with them.

In regard to the purchasing department—a very important department, as you know—I am told that they had started in with a purchasing agent who had been a clerk. They put the duties on him, and he did the best he could. They finally gave him one, two, and three clerks to help out, but he was overwhelmed, and not being a trained man he did not work to advantage even the help that he had. It finally got to a point where they did then create the office of general purchasing agent, and made this Major Gallagher, of whom I spoke, general purchasing agent. The requisitions kept piling in, and he did the best he could, but, having only been a commissary man and not being familiar with the things that he was buying, he was necessarily handicapped.



Mr. Ross can tell you more definitely the condition he found things in when he came. They were doing the best they could, but they were not making much progress. They were getting an accumulation of orders there that would have resulted disastrously if it had gone on in that unsystematic way.

With regard to the accounts, there was no broad system of accounts. I found that the old Commission had made an arrangement with one of the accounting firms in New York. This firm had a man on the Isthmus studying the situation, and, as I remember, the Commission had promised to give this firm the task of creating a system of accounts for its use.

Senator CARMACK. What is the name of that firm?

Mr. SHONTS. The Public Accountants Corporation. I happened to know the president of the company, as I had used him in some railroad work. I saw him probably the first week I was with the Commission, and I then said to him: "I will notify you right now that I will not have your company prepare any system of accounts for the Commission. We will prepare our own system of accounts, for if we do not know what we want and can not work out the system that will give us the results that we want, we ought not to be where we are." "But," I said, "as to your man that you have down there, I am glad he is there. He may stay there until we get our new auditor, and I shall be glad to avail myself of the information contained in his letters." So I got copies of his letters after that, and he had some information with regard to local conditions that was of use.

Generally speaking, however, there was no comprehensive system of accounts in use. I finally got Mr. Benson to come with us, from the Southern Pacific, and he began the organization of a system of accounts applicable to all departments, and we have also revised the accounts of the Panama Railroad, and put in modern statistics, so as to be able to get information with regard to the operations of the road on the same modern lines as obtain with the best organized railroads in this country.

The work is practically completed now, and is in very satisfactory operation, considering the time that we have had it in operation. We expect to make improvements on it from time to time. This is a large work, and in many respects there are no precedents, and we have to originate a great deal of matter.

Senator GORMAN. Do I understand you to say that from the old accounts you could not tell accurately the expenditures and the balances on hand? Is that what you mean to convey?

Mr. SHONTS. I had not said so, Senator.

Senator GORMAN. What did you mean by your statement? I would like to have a little more specific statement.

Mr. SHONTS. I was saying that they had no broad, general system of accounts in operation.

Senator GORMAN. Yes.

Mr. SHONTS. They had a system of accounts, and Mr. Wallace on the Isthmus, for instance, was figuring out a set of accounts for his department. The materials and supplies man was figuring out a set of accounts for his department. The disbursing officer had his own ideas of accounts. But there was no one person in authority getting up a system of accounts that would bring all into a harmonious whole, so as to get in one office, or in the hands of one person, the general results

based on the same set of instructions clear through. That was the situation, if I make myself clear, Senator.

The object of having a general auditor in charge of the accounts of each department is to create rules that will provide for the proper distribution of expenses, and on the same lines in each department, so that when we get results here, and when you ask for the general results, they will all have been made up on the same understanding of the distribution of expenses. Does that answer the question?

Senator GORMAN. Yes.

Senator DRYDEN. Can you now tell, Mr. Shonts, after developing your system of accounts, exactly how much money has been received and how much has been spent, and for what purposes, from the beginning down to the present time?

Mr. SHONTS. I can, absolutely, since we took charge. There is only one thing I want to say, that I thought it only fair to ourselves to have a line of demarcation drawn on the date when we took charge. So I employed this same public accounting corporation to wind up the affairs of the old Commission, charging into their account everything that they had assumed responsibility for during their term of existence; and those accounts have finally been wound up and are complete.

Senator GORMAN. That included the contracts that had not been filled?

Mr. SHONTS. Yes, sir. They were filled under us, but they were assumed by them.

Senator GORMAN. That is right.

Mr. SHONTS. So as to make a complete line of demarcation between the two commissions.

Senator GORMAN. Yes.

Mr. SHONTS. And I had the Public Accountants Corporation do that work, because I wanted some outside, independent, unprejudiced interest to wind up the affairs of the old Commission, so that the charge could never be made that that work had been done by any person who had an interest in the matter.

Senator GORMAN. We asked the auditor for a statement the other day when he was here. Has he brought it this morning?

Mr. BENSON. It is not completed yet, Senator. We have to get some information from the Isthmus in regard to unpaid liabilities of the old Commission.

Senator GORMAN. How long will it be before it is ready?

Mr. BENSON. Two or three days. I think—

Mr. SHONTS. Have you cabled for it?

Mr. BENSON. Yes, sir.

Senator DRYDEN. What I would like to know, Mr. Shonts, is whether there is any missing evidence as to moneys received and paid out from the beginning of this enterprise down to the present time.

Mr. SHONTS. Not that I know of.

Senator DRYDEN. You could furnish a statement, if required, of all moneys received and moneys paid out, and for what purposes?

Mr. SHONTS. And for what purposes; yes, sir.

Senator DRYDEN. Down to the present time, including the acts of the old Commission?

Mr. SHONTS. As I understand it, that is right; yes, sir.

Mr. BENSON. That is right.

The CHAIRMAN. Mr. Shonts, as I understand, the accounts at the Isthmus are all taken care of here at the Auditor's office?

Mr. SHONTs. They all come up here, eventually.

The CHAIRMAN. Everything comes here?

Mr. SHONTs. This is the clearing house for giving information to the Secretary of War and to the President and to you gentlemen and whoever is interested in knowing the results.

The CHAIRMAN. That also applies to the Panama Railway?

Mr. SHONTs. That applies also to the Panama Railway.

The CHAIRMAN. Now, is there any other statement that you would like to make, Mr. Shonts?

Senator SIMMONS. Do you keep two accounts, Mr. Shonts—one of the old Commission's transactions and one of your own?

Mr. SHONTs. The account of the old Commission is wound up.

Mr. BENSON. Pardon me—a few unpaid liabilities of the old Commission show up from time to time that we are charging up against their account.

Mr. SHONTs. You have not finally closed their account as yet?

Mr. BENSON. No.

Mr. SHONTs. It is substantially closed, but we are holding it open for those items.

Senator SIMMONS. If you make any disbursements on any contracts they made prior to your taking hold, do you charge them to their account?

Mr. SHONTs. That goes into their account.

Senator SIMMONS. So that it is not absolutely closed?

Mr. SHONTs. Not absolutely, no; but it is substantially so. We are still holding it open, as Mr. Benson explains, because occasionally some small items still show up.

The CHAIRMAN. Is there anything further, Mr. Shonts?

Mr. SHONTs. I think that gives you a general idea of the organization that we have made.

The CHAIRMAN. Now, Senator Morgan, will you be kind enough to take Mr. Shonts under your care for a little while?

Senator MORGAN. I do not know that I have any special questions to ask Mr. Shonts. I think the committee expect him to give a very general as well as a special account of the situation as he found it on the Isthmus when he was appointed chairman of the Commission by the President, and also of the efforts that have been necessary and have been made to better that condition and to advance the completion of the work.

It has been announced in regard to all these enterprises that have been brought forward by different members of Congress and other persons, and also in the statement of the engineers, that a period of two years of preparation for the work was necessary in getting this great undertaking properly on its feet and in progress. It seems from your statement that the Commissioners first appointed were not fortunate in planning completely either the work of preparation or the work of completion in the work of digging the canal, but that they undertook at first to dig the canal as far as it was possible without sufficient preparation. That is what I understand to be the sum and substance of your statement, as I have gathered it. Now, I would be glad if you would tell the committee what progress had been made

when you got there, Mr. Shonts, and your view of the necessary reorganization in order to make further progress successful and expeditious.

Senator KITTREDGE. Senator, may I ask a question right there?

Senator MORGAN. Yes, sir.

Senator KITTREDGE. When did you first reach the Isthmus, Mr. Shonts?

Mr. SHONTS. On July 26; I went down with Mr. Stevens. I started in to say a few moments ago, when one of the gentlemen asked me for more information in regard to the condition of the offices here, that we had gotten through with our study of the situation on the ground here and the reorganization of our offices here, so that I had intended to go to the Isthmus, sailing June 20. I had my reservations made on the steamer for that date. At that particular time Mr. Wallace's resignation came up, and that kept me here—acting on his resignation, and getting his successor, and the incidents that grew out of his resignation—until July 20. It detained me just a month, so that I went down there with Mr. Stevens, and we landed there July 26.

Senator KITTREDGE. How long did you remain there at that time?

Mr. SHONTS. I remained there two weeks at that time.

Senator KITTREDGE. Now I would be very glad to have Senator Morgan's question answered.

Mr. SHONTS. That brings me up, as I understand it, to Senator Morgan's question.

The first night Mr. Stevens and I spent with Governor Magoon, and from the Governor's statement in regard to conditions—health conditions, the lack of any preparations for taking care of the men either by housing them or feeding them (the most pressing thing being feeding them, for men can bunk almost anywhere, but they have to eat)—we made up our minds that night that the first duty and the most pressing duty was to perfect arrangements for housing and feeding the men. We immediately began the discussion of those two subjects. We also ascertained that for probably twenty-five years the owners of the Panama Railroad had not spent any money either in improving or keeping up their docks or wharves, their engines or their equipment; and that something would have to be immediately done toward improving the terminal facilities.

Senator MORGAN. Let me ask you just there, Mr. Shonts, to describe to the committee the condition of that road at the time you went there.

Mr. SHONTS. The roadbed itself was all right; it was a good roadbed.

Senator MORGAN. Well ballasted?

Mr. SHONTS. Well ballasted. Part of it had been relaid with heavier rails and arrangements were made to relay the rest of it. I think that that is all finished now, Mr. Stevens having laid the last about the time he came up.

Senator MORGAN. It was of special gauge, was it not, so that you had to have engines made to take it?

Mr. SHONTS. Yes; the road is a 5-foot gauge. All equipment that is purchased, both in the way of locomotives and cars, has to be made to order because it is that special gauge.

Senator MORGAN. That is an important matter, I suppose, in connection with the necessity of changing that roadbed to accommodate it to the work of the canal. Do you think it would be advisable to

make the gauge of that road correspond with the gauge of the roads of the United States?

Mr. SHONTS. I do not.

Senator MORGAN. You do not?

Mr. SHONTS. No; that was suggested when Mr. Wallace was there, and the equipment that was ordered while Mr. Wallace was there was ordered so that we could, without very much cost, have changed the wheels of the new equipment so as to make it conform to a 4-foot 8½-inch track. But when I got there myself, with Mr. Stevens, and found out the amount of equipment of various kinds that was on hand, and studied the question, each of us expressed our views in regard to the advisability of changing the gauge. On the one hand there was the theory that everything we purchased would have to be made to order. On the other hand were the benefits that would come from the wider gauge in the way of economy of operation and less liability to accidents, especially in a new work; and in consideration of those benefits, and the further fact that we never expect to have any connecting roads down there with which we would interchange equipment, we decided that it would not be wise to go to the expense of changing the equipment.

I do not believe that the fact that the new equipment was built for a 5-foot gauge costs us any extra money whatever. I do believe that we have so much new work in the shifting of tracks that the wider gauge will result in economy through preventing accidents. I do believe we can get more economic consumption from the fire boxes of locomotives having a 5-foot gauge rather than a 4-foot 8½-inch gauge. So that, balancing the reasons on both sides, Mr. Stevens agreed with me that it would not be wise to think of changing the gauge at all. The new equipment that we have bought since Mr. Stevens has been with us has, therefore, been of the straight 5-foot gauge; and I do not think it has cost us any more. I think that we will be ahead when we get the benefits of operation.

Senator GORMAN. You say it does not increase the cost?

Mr. SHONTS. I do not think it increases the cost at all. The only thing that could have happened was this—we might have bought some second-hand equipment. Now, I do not believe that the purchase of second-hand equipment is real economy; so that that was the only thing we could consider in the general discussion of the proposition.

Senator SIMMONS. Would you not be delayed in getting your equipment because it would all have to be made in the shops after you ordered it?

Mr. SHONTS. Well, Senator, there is so much equipment that has to be made—our steam shovels, for instance—that while we are waiting for that part of the work we will have plenty of time to get the engines and the cars. In fact, the engines and the cars are now coming forward under the terms of the contracts, and will be there in ample time to meet the requirements from the steam shovels when they are received and set up.

One of the chief difficulties, and one of the most important things to bear in mind, is to keep your work in equilibrium. It will not do us a particle of good to have all our steam shovels there if we have not our engines and cars necessary to operate them there, or vice versa. Also, it is just as important to keep the men to work them in equilibrium with the machinery. So we undertake to keep all those things before our minds, and try not to hurry any particular thing

there, but to hurry everything there that will keep in balance with the rest of the essentials, in order to properly install and start the work.

Senator GORMAN. In other words, you aim to have your organization complete?

Mr. SHONTS. Yes, and to keep it balanced, the one part with the other. So that we have not lost any time in regard to the equipment on account of the 5-foot gauge, because it will be there in time to meet the demands of the other equipment that we would have to have built in any event.

Senator GORMAN. Now, please go on with what you found there, Mr. Shonts.

Mr. SHONTS. I think the best way to tell you what we found is to relate the story that Governor Magoon told us that first night up on his veranda. He said: "Now, what are we going to do about feeding these men? Here within two or three days gangs of men have come to me and said, 'Governor, you have got to give us some money; we are starving. We have got to go out in the swamps and get cane; we have got to go out and pick wild bananas. The prices of food stuffs here have gone to such exorbitant figures that we can not earn enough to sustain life. Eggs are \$1.50 a dozen and chickens'"——

Senator DRYDEN. Was that gold or silver?

Mr. SHONTS. They were talking of gold. (To Mr. Ross.) You were present that night, were you not?

Mr. ROSS. Yes.

Mr. SHONTS. That was it—chickens \$1.20 apiece gold; and he said, "What are we going to do?" "Well," I said, "we will open our commissaries to these people." "But," he said, "there is a treaty in which we have agreed not to open our commissaries to the black laboring element, because it will be in competition with the Panamanian merchants." "Well," I said, "we will take a chance on that."

Senator KITTREDGE. What treaty do you refer to?

Mr. SHONTS. There was some agreement or some interpretation of some treaty between the Panamanian Government and ours, I think; and that was a clause in it.

Senator GORMAN. It was a contract made with the Secretary of War.

Senator SIMMONS. There was no treaty.

Mr. SHONTS. Well, probably I do not use the right word. I will say here that I am quite ignorant as to a lot of these terms; but there was an agreement, and the Secretary of War had made an interpretation of it, and it was to that effect.

Senator GORMAN. He had made a contract; he had entered into an agreement.

Mr. SHONTS. "Well," I said, "we will just have to take a chance on that. We have these men here, and I think we are morally obligated to take care of them, and not let them starve to death. Our first duty is to open our commissaries, and we must arrange to do it at once." "Well," the Governor said, "if you are going to do it, I will see what I can do"——

Senator GORMAN. Do you mean to say that there was absolutely no provision made by the Canal Commission to furnish supplies for anybody employed on the canal; that the men were simply turned loose to live wherever they could? Did I understand you to say that?

Mr. SHONTS. That was the situation, so far as the common labor was concerned, outside of the gold employees.

Senator CARMACK. And there seems to have been an agreement with the Secretary of War that that sort of thing should not be interfered with.

Mr. SHONTS. As I understood it from Governor Magoon that night, the Secretary of War had interpreted a treaty to the effect that we would not sell our supplies to the common labor down there in competition with the Panamanian merchants, unless the prices got so unreasonable as to force action, or something of that kind. There was a saving clause, and I took advantage of that. But I want to say that President Amador was very nice, indeed, about the matter. Governor Magoon went to him, and they arranged an understanding by which we could open our commissaries and sell supplies to the common labor until such time as supplies again became reasonably cheap, so that there was no friction of any kind either between the Panama Republic and our people or with any other person. The Panama merchants afterwards did protest, and there were more or less complaints made; but they finally settled down, and the thing has been going on without any further objection.

Senator DRYDEN. Up to this time were there not boarding houses or some places where these people were regularly fed and boarded, or did they have to go to the stores and buy the provisions, cook them themselves, etc.? Was that the method?

Mr. SHONTS. That was the method; yes.

Senator KITTREDGE. I would like to ask you, Mr. Shonts, about this treaty of which you speak. Was that a treaty ratified by the Senate?

Mr. SHONTS. Indeed, I do not know.

Senator KITTREDGE. Or was it an agreement made between the Republic of Panama and the Secretary of War, Mr. Taft?

Mr. SHONTS. I probably have used the wrong word in speaking of it as a treaty; but as I understood from Governor Magoon that night, it was the Secretary of War's interpretation of a clause in a treaty, or it may have been in an agreement of some kind.

Senator HOPKINS. It must have been an agreement; it could not have been a treaty.

Senator KITTREDGE. That was what I was getting at.

Mr. SHONTS. Yes. I say, I probably used the wrong word when I said "treaty," because I am ignorant of these terms in international relations.

Senator CARMACK. I would like to know what became of the agreement you refer to.

Senator HOPKINS. Probably we can get that.

Senator GORMAN. We have that already.

Mr. HOPKINS. That is in Secretary Taft's report of 1904 or 1905, is it not, Senator?

Senator GORMAN. I am just looking at it; I do not know whether it is in the report for 1904 or the one for 1905.

Senator DRYDEN. Whatever it may have been, either an agreement or a contract, or whatever it was, it was based upon the assumption that there were ample facilities there for feeding these people, and that contract presupposed that if it was to be kept on our part it was also to be kept upon the other people's part; and therefore, if it was not kept on the other people's part, it was a condition which was not antic-

ipated. Therefore, when you arrived upon the Isthmus and found this condition, you thought yourself justified in correcting the evil which has grown out of that situation?

Mr. SHONTS. I felt, from what the governor told me, that the prices had reached such a point that they would be called unreasonable within the meaning of this paper that he referred to, and that there could be no proper objection made to our opening our commissaries and offering these colored men the benefit of our supplies at our cost prices, plus the per cent that we add for handling and freight, etc.

Senator MORGAN. Did the prices of supplies there reach this point that you speak of in consequence of the conduct of the merchants at Panama who furnished provisions?

Mr. SHONTS. Well, Senator, I do not see how they could have helped but know that when we dumped ten or twelve thousand new population in that territory, with the class of people that they have there that do not create a surplus, it would necessarily result in a scarcity of food supplies. I was told, for instance, with regard to the fellows that used to fish every day out in Panama Bay in order to get enough money to live on, that the price of fish went up so high that they would fish only about once a week; they could get enough for their daily catch to keep them. So that they did not take advantage of the high price of these food supplies to make money; they would only fish enough to get the same amount of money that they had been getting, and would rest the balance of the time.

I had the same experience in Baldwin County, Ala., when I first went down there. My wife had been building up our place, and she had been paying the help (which was all colored) half a dollar a day. I said: "Why, I am ashamed to pay people half a dollar a day. I do not think anybody else is spending any money right around here, so what is the matter with my paying them a dollar a day? That is little enough to pay anybody." So I raised the wages on our place to a dollar a day, with the result that whereas Mrs. Shonts had been getting six days' work a week out of her colored help there in Alabama, I only got three. All they wanted was the \$3. [Laughter.] The same principle governs down on the Isthmus. There was no surplus of food supplies.

Senator MORGAN. Is it not your observation, in reference to the class of people who are digging this canal and who are relied upon to dig it, that that is the universal rule—they will work long enough during the week, for instance, to get enough to live upon and enjoy themselves in their own way, and then, instead of going on and attempting to add to their earnings, they will stop work and go to frolicking and resting?

Mr. SHONTS. Senator, that seems to be the vital weakness in the class of labor that we are now using.

Senator MORGAN. I will add to that, that it is the vital weakness of the class of labor that we have to deal with in the South.

Senator DRYDEN. And that practically necessitates your dealing with these people by day labor rather than by week labor? You can not hire them by the week, in other words, and calculate or depend upon their doing a week's work? They will work three days, for instance, if they get the necessary amount of money to live upon?

Mr. SHONTS. They only seem to have an ambition to get a certain amount of money, and when they get that they rest.



The CHAIRMAN. You pay all of your men there by the hour, do you not?

Mr. SHONTS. We pay all labor by the hour. And it seems rather a hard thing to say, but I believe it is true—I believe that one of our troubles there to-day is that we are paying the common labor too much money. I believe that if we paid them less we would get more work out of them; and I believe that if we could work them ten hours a day they would be better physically and better morally, and we would get more work per hour out of them.

The CHAIRMAN. Do you not think that would apply to the white as well as to the colored labor?

Mr. SHONTS. Well, the whites do want to work, to a large extent, ten hours a day.

The CHAIRMAN. But they only get paid for eight hours if they work ten, do they not?

Mr. SHONTS. No; under the present rule if they work ten they get time and a half for the extra two hours.

Senator SIMMONS. You allow them to work ten hours if you want to, do you not?

Mr. SHONTS. No; not under the law. We are subject to penalties if we do.

Senator SIMMONS. Is there a provision in terms in that treaty or contract which you spoke of which requires the Panamanian merchants to furnish provisions at a reasonable price as a condition to this Government not establishing a commissary out there?

Mr. SHONTS. That was not set forth in terms; no, sir. The inference was—

Senator SIMMONS. You just interpreted it in that way?

Mr. SHONTS. Yes; the inference was that if the prices became unreasonable—the word “unreasonable” was in that clause—we could open our commissaries.

Senator SIMMONS. Yes.

Mr. SHONTS. And I made the interpretation that the prices that the governor quoted to us were so unreasonable as to justify us in ordering our commissaries to be opened. So the next morning, I think it was, or at least the second day, we started our men out to locate places for commissary buildings along the line of the canal.

Senator SIMMONS. You said that these high prices which you named a little while ago—of eggs and chickens and things of that sort—were payable in gold. Are you not mistaken about that? If chickens cost \$1.50 each and eggs \$1.50 a dozen in gold, that would be \$3 in silver.

Mr. SHONTS. Well, I got these prices from Governor Magoon, and Governor Magoon does all his housekeeping transactions there in gold, and I inferred that that was on the gold basis.

Senator SIMMONS. But you said at that time that you were supplying the gold men from the Government commissaries. Therefore they did not have to buy from these merchants.

Mr. SHONTS. They did not have to buy from them, but commissaries did not keep chickens and fresh meats.

Senator SIMMONS. The laborers had to buy from them, and they were paid in silver?

Mr. SHONTS. Yes.

Senator SIMMONS. And it would seem to me that the reasonable

inference is that these prices which you have mentioned were silver prices rather than gold prices.

Mr. ROSS. I think they were.

Mr. SHONTS. Well, possibly they were silver. It is only an inference of mine.

Mr. ROSS. They were high, even at that.

Senator SIMMONS. Oh, of course, they were enormous, but if those were gold prices they would be simply out of reason.

Mr. SHONTS. The result of it all was that the governor said to me that in many instances these poor fellows could not earn enough to buy food to live on. That was the upshot of it all, and I was trying to get at the results more than to remember the exact prices of the commodities.

Senator SIMMONS. At \$3 a dozen it would take over three days' work to buy a dozen eggs.

Mr. SHONTS. They would not buy eggs on that basis, Senator, and were not buying them.

Senator SIMMONS. Everything else was in proportion, I presume?

Mr. SHONTS. Yes; everything was in proportion, so he said. The result of that was that we at once ordered the location of commissary stores all along the Isthmus, and we ordered our men in charge of the commissary to commence getting requisitions to feed these laborers and take care of them.

Senator SIMMONS. I have seen a statement to the effect that these men had to go out in the swamps and get cane and wild bananas because they could not afford to buy these other things. I thought that was one of these exaggerations that we have had about the conditions down there, but it appears to have been absolutely true.

Mr. SHONTS. But since that time there seems to have been no complaint, and I will say that to-day they are not patronizing our commissaries to any large extent. They are certainly getting their subsistence at some place, and they must be getting it very much cheaper than they could from us.

Senator SIMMONS. Have not the merchants reduced their prices?

Mr. SHONTS. I think that is the result.

Senator CARMACK. Are there any American merchants established there?

Mr. SHONTS. Not that I know of.

Senator DRYDEN. These high prices, then, you think, were the result of a monopoly there?

Senator MORGAN. Are there many Chinese merchants there?

Mr. SHONTS. Yes, sir; there are a great many.

Senator MORGAN. A great many?

Mr. SHONTS. Yes.

Senator MORGAN. They are great fellows for maintaining a monopoly.

Mr. ROSS. The American Trading Company (Limited) has a store down there.

Mr. SHONTS. Where; at Panama?

Mr. ROSS. At Colon, and I think at Panama, too.

Mr. SHONTS. Mr. Ross advises me that there is one American firm down there.

Senator SIMMONS. Do you mean to say that there is only one American firm doing business in the whole Isthmus?

Mr. SHONTS. That is all that I know of.

Senator MORGAN. Now, Mr. Shonts, that brings up the proposition, if the committee will permit me a moment, about which I want to get your opinion. It is my judgment—of course, a very poor one—that that Canal Zone will never be properly governed with reference to the digging of this canal until the Government of the United States has absolute charge of every foot of it in every respect; and that no person ought to be permitted, for instance, to conduct a mercantile business in that Zone except under the express license, carefully considered, of the Commission.

I might extend this remark to various other occupations that I suppose are being followed there, and say that the Government of the United States ought to be able to locate there proper conveniences for the housing and accommodation and health and pleasure of all persons who are employed in that service, from the highest to the lowest. I believe that no outside man of any sort from any country should be permitted to come in there and locate in that Zone in competition with the men that we put there, and that the Government should regulate and control all of the men who are employed there in any sort of business, catering to the people who are there, supplying them with food and clothing, and the like of that, so that their charges should not be exorbitant, and so that their licenses will be revoked and they will be dismissed from that place and driven out in the event of their attempting to impose upon the laborers or any other class of people who may be there.

I state that as my general idea—that both for the success of the work and for the preservation of the machinery and of all the immensely costly material that we have there, it is necessary that there should be strong if not absolute power exercised there, summarily, in order to control the men with whom you have to deal. In my judgment, according to the accounts that I have they are about as uncontrollable and as mischievous a rabble as ever collected at any place in the world, collected in consequence of the inducements for such people to go there to speculate upon the laborers and others who are receiving large amounts of money, and are making progress in leeching them and enriching themselves. The Chinese merchants that you mention as being very numerous are, in my judgment, a dangerous class of men unless they are controlled by absolute authority.

I would not think of taking a Chinese merchant before a court in the Isthmus and indicting him for swindling a negro from Jamaica or anywhere else. I would not think of doing that. I would very much rather take a bamboo and run him out of that place, and put a sentry there to tell him that he must keep out.

In other words (or, rather, to sum up my conclusions about it), I think that the Isthmian Canal Zone ought to be placed under the same regimen with a military reservation in the United States, and that until we take that course we will have no security that we are going to do things right in the Zone. That is my judgment. Have you any criticism to make of it?

Mr. SHONTS. I have often thought that the establishment of military rule there would in many ways protect the men and enable us to control them more efficiently.

Senator KITTREDGE. Mr. Shonts, again referring to the question of the construction of a treaty concerning the commissary department, I

read from page 11 of the report of the Secretary of War under date of January 12, 1905, as follows:

"The Government and merchants of Panama regard with considerable anxiety the construction which is to be put upon Section XIII of the treaty"—referring to the treaty between this Government and the Republic of Panama, which was ratified in February, 1904—"which reads as follows:

"The United States may import at any time into the said Zone and auxiliary lands, free of custom duties, imposts, taxes, or other charges, and without any restrictions, any and all vessels, dredges, engines, cars, machinery, tools, explosives, materials, supplies, and other articles necessary and convenient in the construction, maintenance, operation, sanitation, and protection of the canal and auxiliary works, and all provisions, medicines, clothing, supplies, and other things necessary and convenient for the officers, employees, workmen, and laborers in the service and employ of the United States and for their families. If any such articles are disposed of for use outside of the Zone and auxiliary lands granted to the United States and within the territory of the Republic, they shall be subject to the same import or other duties as like articles imported under the laws of the Republic of Panama."

Senator CARMACK. That is the clause he had reference to.

Senator KITTREDGE. That is section 13 of the treaty between this Government and the Republic of Panama, ratified about the time I have stated. Is that the section to which you refer?

Mr. SHONTS. No. What I referred to was what I understood Governor Magoon to say was Secretary Taft's interpretation of probably that clause in the treaty.

Senator KITTREDGE. I will read further in just a minute. I was wondering whether this was the provision that you had in mind.

Mr. SHONTS. I presume that that is the clause in the treaty that Secretary Taft interpreted, and it was the interpretation that we had before us.

Senator KITTREDGE. Now I read further from his report:

"After conference with Admiral Walker, General Davis, and Mr. Wallace, the chief engineer, I became convinced that we should restrict the application of Section XIII, so far as it affects food supplies, articles of clothing, and merchandise for the use of officers and employees of the Government, of the Canal Commission, and of the contractors engaged in work on the canal, and in the Zone, to those who were brought from the Temperate Zone, who could not obtain from the ordinary stores in the Isthmus the food supplies, clothing, and other things to which they were accustomed and which they regarded as essential to their living. It did not seem wise for the Commission itself or through its contractors to establish a commissary for the feeding of the ordinary day laborers on the canal. They must necessarily come from a climate like that of the Isthmus, and must be used to the food which the common people of the Isthmus use. The Commission should, however, hold in terrorem over the merchants of the Republic and the Zone the possibility that a commissary for the sale of food and other merchandise to the common laborers may be established if the merchants do not furnish food and clothing to such laborers at a reasonable rate."

Mr. SHONTS. That is it.

Senator KITTREDGE. That is what you had in mind?

Mr. SHONTS. That is it. Now, I thought that the prices quoted to me were so high that they were not reasonable, as intended by that interpretation of that clause of the treaty; and I therefore said that we would open our commissaries.

Senator KITTREDGE. Then instead of the clause of the treaty you mean the construction which Secretary Taft placed upon that section of the treaty?

Mr. SHONTS. The construction, I say, would be based upon that clause of the treaty; yes, sir.

Senator GORMAN. In that connection, Mr. Shonts, I think it is proper that you should have an opportunity to explain this. I think your statement would bear the interpretation that the old Commission, of which General Davis was president in the Zone, and Wallace the engineer, had failed to make provision for the laborers, and that that was the condition which you found there, and that it was because of their action. Is that what you meant to say?

Mr. SHONTS. Possibly when they were there there had not been enough men brought to the Isthmus to cause this scarcity of food and these higher prices, so as to require them to take the action that we thought we had to take when we got there.

Senator GORMAN. Yes.

Mr. SHONTS. I do not mean it as a reflection; I am simply trying to state the conditions that confronted us when we reached the Isthmus, on July 26.

Senator GORMAN. I see. Now, is it not a fact——

Mr. SHONTS. Will you permit me to say one thing right there, Senator?

Senator GORMAN. Certainly.

Mr. SHONTS. I wanted to say it in response to the question that Senator Kittredge brought out, before we leave that subject: Governor Magoon immediately brought up the question with President Amador of our opening our commissaries to the laboring people because of that clause in this interpretation which provides that the prices must be reasonable; and Governor Magoon said that President Amador told him he knew of his own knowledge that the prices were high, that the Panamanians themselves had to pay these high prices, and that therefore he was very glad to enter into an agreement which permitted us to open our commissaries and keep them open until such a time as the prices should again be reasonable.

Senator KITTREDGE. Right there let me ask whether such an agreement as that was made at the time you speak of.

Mr. SHONTS. Immediately.

Senator KITTREDGE. And in what form was it put?

Mr. SHONTS. That was in the form of an exchange of letters between Governor Magoon and President Amador.

Senator KITTREDGE. Have you copies of those letters?

Mr. SHONTS. I can get them for you; yes, sir.

Senator KITTREDGE. Are they here in Washington?

Mr. SHONTS. Copies of everything are in Washington; yes, sir.

Senator KITTREDGE. I wish you would arrange to bring those copies here.

Mr. SHONTS. I will be very glad to.

(The papers referred to were subsequently furnished by Mr. Shonta, and are as follows:)

ANCON, ISTHMIAN CANAL ZONE,  
*July 28, 1905.*

MY DEAR MR. PRESIDENT: The question of supplying food to the employees and laborers engaged in the work of constructing the Isthmian Canal has heretofore been difficult and has now reached a critical stage. During the past year the population of the Isthmus has been increased from 15,000 to 20,000, and practically all are employees of the Commission and their families. The food products of the Isthmus have never been greatly in excess of the immediate demands of the inhabitants, and these products have been reduced by partial failure of crops and the fact that many agriculturists have abandoned tilling the soil and engaged in the work on the canal and public works undertaken by the Republic of Panama. The short hours of labor and the wages paid make it much easier for the common laborer to provide for his necessities by working a few days in the week on these public works than by attempting to raise a crop requiring him to work every day and all day.

The importation of food supplies from Peru and other South American countries has been largely reduced by reason of quarantine regulations rendered necessary by the presence of bubonic plague in the ports to the south of Panama. The facilities of transportation between the ports of the United States and those of the Republic are limited and overtaxed, and none of the ships plying between these ports are fitted out with cold-storage facilities; therefore it has been difficult to secure prompt delivery of nonperishable goods and impossible to secure perishable goods and food stuffs from the States.

Both the Republic and the Commission have endeavored to induce the raising of food crops and have offered free use of land to people who would engage in gardening or other agricultural pursuits, and also transportation on the railroad into Panama and Colón at a mere nominal rate for market supplies. No one has taken advantage of the offer. The attraction of good wages for working eight hours per day were greater than the continuous toil of market gardening.

The inevitable result of this condition is that the price of food products has arisen steadily until it is well-nigh impossible for the bulk of the laborers on the canal to supply themselves with the necessities of life. The high price of foodstuffs is likewise oppressive to the inhabitants of the Republic of Panama, who naturally object to the increased cost of living, and, I regret to observe, attribute it to the presence of the Americans on the Isthmus.

The Government of the Republic and the Isthmian Canal Commission had recourse to numerous expedients that seemed calculated to increase the food supply and to reduce the cost. The Republic reduced import duties from 15 and 20 per cent ad valorem to 10 per cent ad valorem; the Panama Railroad and steamship lines reduced freight rates from New York to Panama not less than 50 per cent; the Government of the Republic, the Isthmian Canal Commission, the government of the Zone, the Panama Railroad, and all of the banks of the Republic entered into an agreement reducing the rate of exchange, which had in times past been frequently as high as 50 per cent, to 2 per cent and less; and the Government of the Republic adopted a plan

which has secured a stable currency; but all of these measures have proved insufficient to secure the maintenance of reasonable prices for food supplies.

It may be that no individual or class of individuals is to blame for this condition of things. Possibly it is the result of the working of the laws of supply and demand. Whatever the cause, the effect is that the prices of food products are excessive to a degree that borders on the prohibitive to the citizens of the Republic and the employees of the Commission.

"The convention between the United States and the Republic of Panama for the construction of the ship canal to connect the waters of the Atlantic and Pacific," signed November 18, 1903, provides (art. 13) that "The United States may import at any time into the said Zone and auxiliary lands, free of custom duties, imposts, taxes, or other charges, and without any restriction \* \* \* all provisions, medicines, clothing, supplies, and other things necessary and convenient for the officers, employees, workmen, and laborers in the service and employ of the United States and for their families." The United States is anxious to promote the trade and commerce of the Republic of Panama in all possible and legitimate ways. Pursuant to this desire, Secretary Taft, in the agreements set forth in the Executive order dated January 7, 1905, made provision that the exercise of this right should be confined temporarily to making provisions for supplying necessities to the employees brought from the Temperate Zone, being the employees on what is known as the "gold roll," and that the experiment should be tried of requiring employees secured in the Tropics to purchase their necessities from local dealers. The provision of said Executive order is as follows:

"This order contemplates the exclusion from benefits of the commissaries established and maintained by the Commission of all employees and workmen who are natives of tropical countries wherein prevail climatic conditions similar to those prevailing on the Isthmus of Panama, and who, therefore, may be presumed to be able to secure the articles of food, clothing, household goods, and furnishings of the kind and character to which they are accustomed, from the merchants of Panama, Colon, and the towns of the Canal Zone, and whose ordinary needs may be supplied without recourse to the Government commissaries. Should it develop hereafter that said merchants charge prices in excess of legitimate profit, or practice other extortions, the United States, for the protection and assistance of all its employees, whether from the Tropical or Temperate Zone, will supply its commissaries with such staple articles as are required and desired by the inhabitants of tropical countries, and permit all its employees and workmen, and those of its contractors to avail themselves of the benefits and privileges afforded by said Government commissaries."

This course has been adhered to for the past seven months, with results that are far from satisfactory. The native employees and those coming to the Isthmus from Jamaica, the Barbados, and elsewhere in the Tropics have been required to secure their supplies from the local dealers. This was difficult, because at many places along the line of the canal there were no stores, and as the camps were constantly being shifted no private individual desired to establish stores. The employees sought to establish a credit with such local dealers as they could reach and were given a credit of one week. It has heretofore been impos-

sible for the Commission to comply with the requirements of the United States Treasury in the matter of preparing pay rolls so as to make payments to the men within a period of one week after the work was performed, and it has frequently occurred that our employees were without money or credit with which to supply themselves with food. This has resulted in much dissatisfaction and frequent refusals to work. The price of food has been so high that many of the common laborers were unable to earn enough to properly feed themselves, and large numbers are now returning to Jamaica and elsewhere for that reason. Others who are unable pay their passage have gone into the brush for the purpose of raising enough food to sustain themselves.

It is apparent that an emergency exists, and immediate steps must be taken to meet it. To do this it will be necessary to equip the ships of the Panama Railroad and Steamship Line with cold-storage facilities, and also, if possible, to induce the United Fruit Company's line to put cold-storage facilities into their ships. This will take time, and meanwhile our native employees lack food. It is therefore necessary that the Commission shall afford the native employees the privilege of patronizing the commissary until the increase of food supplies on the Isthmus shall reduce the price to what is reasonable. I am confident this will not interfere with the business of the merchants of the Republic of Panama, for the demand is so much in excess of the supply that they will still find it difficult to secure sufficient food supplies for the residents of the Isthmus who are not employees of the Commission, and they will secure a profit as large as they are now receiving, for the decrease in the demand will enable them to decrease the exorbitant prices now exacted by the producers. The Commission proposes to open subcommissaries along the line of the canal, but will, of course, refrain from establishing branches in Panama, Colon, or elsewhere outside the Zone, and will not permit nonemployees to patronize these commissaries. This course affords relief not only to the employees of the Commission, but also to all of the inhabitants of the Isthmus, for all are suffering from high prices and inadequate supply.

I hope Your Excellency appreciates the difficulty with which the Commission is contending, and I feel confident that the citizens of the Republic, of which you have the honor to be the head, will see the necessity for the Commission's course in this matter and cheerfully acquiesce and assist therein, as it is the only course calculated to relieve a distress in which all of us participate.

Yours, sincerely,

CHARLES E. MAGOON,  
*Governor.*

His Excellency, MANUEL AMADOR GUERRERO,  
*President of the Republic, Panama.*

---

PANAMA, August 1, 1905.

Hon. CHARLES E. MAGOON,  
*Governor of the Canal Zone, Ancon.*

SIR: His Excellency the President of the Republic has taken due notice of the contents of your esteemed note of the 28th last, referring to the intended extension of the privilege of purchasing provisions from the Canal commissariat to the native employees, and to all those who come from tropical countries with a climate similar to that of Panama.



You observe that this measure has been decided upon in view of the exceptional circumstances that have caused the high price of provisions; that the measure is provisory until the increase in the production of articles of food shall bring about a reduction of prices to a reasonable standard; that the Commission merely proposes to establish branch commissariats along the line of the Canal; that none will be established in Panama or Colon or at any point outside the Canal Zone, and that none but employees will be permitted to benefit by the new arrangements.

His Excellency the President, always disposed to facilitate whatever may advance the construction of the great work in which both Governments are so deeply interested, has no objection to the proposed measure, considering the circumstances that caused its adoption, being thankful that, in pursuance of Secretary Taft's executive order, the measure is but temporary and will be in force only until the merchants can supply provisions at a reasonable price.

I take advantage of the occasion to subscribe myself,

Your obedient servant,

SANTIAGO DE LA GUARDIA.

---

ISTHMIAN CANAL ZONE,  
EXECUTIVE OFFICE,

*Ancon, Isthmian Canal Zone, October 10, 1905.*

SIR: I have the honor to advise you that in the month of July, 1905, there had arisen the emergency provided for in your order of January 7, 1905, respecting the Government commissaries in the Canal Zone, to wit:

That if necessary—

“\* \* \* the United States, for the protection and assistance of all its employees, whether from the tropical or temperate zone, will supply its commissaries with such staple articles as are required and desired by the inhabitants of tropical countries, and permit all its employees and workmen, and those of its contractors to avail themselves of the benefits and privileges afforded by said Government commissaries.”

A conference was had between the chairman, the chief engineer, and the governor of the Zone, at which it was determined to present the matter to the authorities of the Republic of Panama for the purpose of securing their acquiescence in the plan of opening the commissaries to all our employees on both the gold and silver rolls.

I had a conference with President Amador and Secretary Guardia, and they cheerfully consented to the proposition and expressed the hope that it would result in reducing the price of foodstuffs to the inhabitants of the Republic as well as the employees of the Commission. I then addressed a letter to the President, discussing the matter and making formal presentation of our proposal. In response thereto Secretary Guardia advised me that his Government had “no objections to the proposed measure, considering the circumstances which caused its adoption.”

Upon the plan being made public several merchants of the city of Panama and one or two in Colon, who had heretofore enjoyed the monopoly of selling foodstuffs, protested against the order. Mr. Ricardo Arias, speaking for these merchants, addressed a letter to me

setting forth the objections to the plan. The letter was published in the local press and immediately provoked much discussion. I thought it wise to fully advise the public respecting the situation and answered Mr. Arias's letter and gave copies to the press. Every newspaper on the Isthmus supported the action of the Commission, as did also an overwhelming majority of the inhabitants. I think even a majority of the merchants sustained the action, because theretofore our employees had been required to spend so much for food that they had nothing to spend with merchants who dealt in other commodities.

In carrying out the plan we adopted every safeguard we could think of for confining the commissary privilege to our employees, and affording the merchants all possible protection of the trade which is legitimately theirs; among other things, we prohibited the sale of goods in the commissaries for cash, and established a system of coupons which can be secured only from the timekeepers, and in limited amounts.

The merchants finally proposed that the Commission permit these coupons to be accepted by the merchants for goods, and redeemed when presented to the Panama Railroad Company. This proposal was accepted. The merchants also requested the Commission to limit the goods on sale in the commissaries to those properly classified as "necessities." The Commission accepted this in principle, but are unable as yet to state with certainty what are and what are not necessary for the comfort and welfare of our employees.

Thus the matter stands, and, so far as I can see, everyone is satisfied. Of course, the merchants heretofore enjoying privileges that were monopolies, would be glad to return to previous conditions, but the general public and unbiased Panamanians are very glad that the plan has been carried out.

I transmit herewith a compilation of the correspondence and some of the many articles published in the newspapers during the discussion; also some of the letters received by me, commending the course pursued.

Respectfully submitted.

CHARLES E. MAGOON, *Governor.*

A true copy.

HENRY SEYMOUR,  
*Chief Record Division.*

HON. WM. H. TAFT,  
*Secretary of War, Washington, D. C.*

WAR DEPARTMENT,  
*Washington, D. C., October 19, 1906.*

MY DEAR GOVERNOR: I beg to acknowledge the receipt of your letter of October 10, describing the action taken by the government of the Canal Zone with reference to commissaries. I approve the action.

Very sincerely, yours,

WM. H. TAFT.

HON. CHARLES E. MAGOON,  
*Governor of the Canal Zone, Ancon.*

A true copy.

HENRY SEYMOUR,  
*Chief Record Division.*

*Action of executive committee of Isthmian Canal Commission at Panama, August 2, 1905, authorizing opening of commissaries to native employees.*

Whereas the question of supplying food to the employees and laborers engaged in the work of constructing the Isthmian Canal has heretofore been difficult and has now reached a critical stage because of (1) the increase of population of the Canal Zone; (2) the reduction of the food products of the Isthmus by a partial failure of the crops and the abandoning by agriculturists of their farms in order to engage in work on the canal and on public work undertaken by the Republic of Panama; (3) the reduction of the importation of food supplies from South American countries by reason of the quarantine regulations, and (4) the limited transportation facilities between the ports of the United States and those of the Republic, all these conditions resulting in prices for food supplies excessive to a degree that borders on the prohibitive to the employees of the Commission on the Isthmus and creating an emergency to meet which immediate steps are necessary; and

Whereas all these facts have been communicated to the authorities of the Republic of Panama for their consideration; and

Whereas the President of the Republic has stated that under the circumstances described above the Republic has no objection to the action hereafter provided for: Therefore be it

*Resolved*, That the privilege of purchasing provisions from commissaries established and maintained by the Isthmian Canal Commission and by the Panama Railroad Company in the Canal Zone shall be extended to native employees and to all those who come from tropical countries where the climate is similar to that of Panama.

*Resolved further*, That this privilege shall be continued only until the increase in the production of articles of food on the Isthmus and other conditions shall bring about a reduction of prices to a reasonable standard.

*Resolved further*, That the Commission shall establish branch commissaries along the line of the canal, but will not establish branches in Panama or in Colon or elsewhere outside of the Zone, and that none but employees of the Isthmian Canal Commission or of the Panama Railroad Company will be permitted to benefit by the extension of the privilege herein provided for.

Senator MORGAN. After you got to the Isthmus, Mr. Shonts, was there any very considerable increase of laborers on the work or in the Isthmus?

Mr. SHONTS. Oh, yes, sir. We have been increasing them almost steadily ever since July.

Senator MORGAN. Was there a large influx after your arrival?

Mr. SHONTS. Yes, sir.

Senator GORMAN. Senator Morgan, just let me finish on that point before you get to the laborers.

Senator MORGAN. Certainly.

Senator GORMAN. Because I think it is important to fix the responsibility for the failure to take care of our people there where it belongs; not to reflect on anybody, but simply to fix it. As I understand you, Mr. Shonts, the order of the Secretary of War, dated on the 7th day of January, 1905, was prior to your taking charge?

Mr. SHONTS. Yes, sir.

Senator GORMAN. That was the 7th day of January, 1905. You went in in April?

Mr. SHONTS. I went in in April.

Senator GORMAN. Yes. From that order it would appear that the old Canal Commission, through the governor of the Zone, had made provision for furnishing supplies to the ordinary laborers, and that there was complaint on the part of the Panama authorities that that was a stretch of interpretation of the original treaty that has just been read to you. So that it appears that the President directed the Secretary of War to go to the Isthmus, and after consultation and negotiations he issued the order to which you refer, which is addressed to the chairman of your Commission, and the third clause of which says:

"This order contemplates the exclusion from benefits of the commissaries established" (that the old Commission had established) "and maintained by the Commission of all employees and workmen who are natives of tropical countries wherein prevail climatic conditions similar to those prevailing on the Isthmus of Panama, and who therefore may be presumed to be able to secure the articles of food, clothing, household goods and furnishings, of the kind and character to which they are accustomed, from the merchants of Panama, Colon, and the towns of the Canal Zone, and whose ordinary needs may be supplied without recourse to the Government commissaries." Now, was it not that order, issued by the Secretary of War and approved by the President, and also approved by Admiral Walker, the former chairman, that produced the conditions which you have described—of utter failure to provide for your men?

Mr. SHONTS. Possibly so. That is the matter that I knew nothing about until I got there. I only know that there were no commissaries opened locally across the Isthmus until after we opened them.

Senator HOPKINS. You can only testify to conditions as you saw them there?

Mr. SHONTS. As I found them there on July 26.

Senator GORMAN. But I assume that Mr. Shonts is familiar with all the orders that have been issued in this regard.

Mr. SHONTS. Yes; but I am not familiar with what was done under those orders.

Senator GORMAN. Yes. Now you have abandoned that order, and are furnishing supplies under whose direction and by what authority?

Mr. SHONTS. By what authority did I open those commissaries?

Senator GORMAN. Yes.

Mr. SHONTS. I assumed that the Commission, having brought those men there, and finding the prices unreasonable, had authority to open its commissaries and sell its supplies to the common labor until such time as the prices of those supplies would again become reasonable, and I acted on that assumption.

Senator GORMAN. By submitting it to the Secretary of War or on your own authority?

Mr. SHONTS. I acted immediately there, because the matter was very pressing, but it was all afterwards reported to the Secretary of War and to the President.

Senator GORMAN. And approved?

Mr. SHONTS. I do not remember of any formal approval. It has not been disapproved. I presume it was formally approved.

Senator GORMAN. Are orders of that sort issued by the chairman without the action of the Commission?

Mr. SHONTS. The executive committee of the Commission has power to act on everything that comes within its scope under the law, and those acts are passed on by the Commission at their next full meeting. Governor Magoon and I were on the ground, and we were the majority of the executive committee, and the governor entirely agreed with me as to the necessity of the action taken; and our action was afterwards approved by the full Commission. We also had General Ernst with us as a member of the Commission, and he was in entire sympathy with our action; and all the members of the Commission afterwards approved of it.

Senator GORMAN. And then, as I understood, you reported to the Secretary of War, who had issued this order prohibiting it?

Mr. SHONTS. We report everything that we do to the Secretary of War, copies of all of our minutes and of all our acts as an executive committee, and afterwards of our full Commission are sent to the Secretary of War.

Senator GORMAN. But I mean in view of the fact that the Secretary of War, by the order of the President, entered into this contract with the Government of Panama, was special attention called to your abrogation of it?

Mr. SHONTS. I do not know that I made any formal report to the Secretary of War. I do not remember. But I did make a report of everything, and it went to him in that shape. I do not remember of making a special feature of it in the nature of a special report. In fact, I think the Secretary of War was in the Philippines when I returned, and that I did include it in a special report that I made to the President. That is as I recollect it.

Senator DRYDEN. Mr. Shonts, in the letter of the Secretary of War to the President, or the report to the President of January 12, 1903, the Secretary seems to have taken a precautionary step to protect these laborers under the very condition which did arise and which he anticipated as possibly to arise, for he says, in the quotation which Senator Kittredge has already read: "The Commission should, however, hold in terrorem over the merchants of the Republic and the Zone the possibility that a commissary for the sale of food and other merchandise to the common laborers may be established if the merchants do not furnish food and clothing to such laborers at a reasonable rate."

Mr. SHONTS. It was the "reasonable rate"—that was the protection that I undertook to take advantage of to protect the laborers, in anticipation of which the Secretary had, no doubt, used that language.

Senator DRYDEN. Yes. So that the Secretary of War never at any time expected to leave these laborers to the mercy of these speculators and their exorbitant charges, but he held this power in abeyance in case such a condition should arise, and you found that condition was there when you got there, and took steps to remedy it?

Mr. SHONTS. You have stated it exactly as I understand it. The Secretary of War wanted to recognize all the wishes of the Panamanian people so far as he could do so in justice to our own employees.

Senator SIMMONS. Mr. Shonts, I want to ask you one question. I understood you to say that the very night that you arrived upon the Isthmus you ascertained from Governor Magoon that these conditions

that you have stated with reference to food supplies existed upon the Isthmus?

Mr. SHONTS. Yes, sir.

Senator SIMMONS. Did you inquire of Governor Magoon or of anybody else, and did you ascertain through those inquiries how long the conditions which you found then existing had been in existence, and whether there had been any steps taken to remedy them?

Mr. SHONTS. The governor told me that these conditions had been growing worse for some time, and that he was getting very anxious about the situation, and had made thorough investigations all along the line in regard to the conditions that existed everywhere. Wallace having resigned and gone, and Mr. Stevens not having reached there, Governor Magoon was the only one in authority.

Senator SIMMONS. How long did he say these conditions had been bad?

Mr. SHONTS. He did not say how long they had been bad.

Senator SIMMONS. Did you ascertain by other inquiry?

Mr. SHONTS. Oh, I ascertained from talking with our various men on the Isthmus, all along the line, that these conditions were about as the governor had said, and that they were growing worse and worse with the increase of the population and no corresponding increase in supplies.

Senator SIMMONS. How many unskilled laborers were employed there at that time?

Mr. SHONTS. I think in July we had about 12,000 men on the roll; or 11,000, was it not?

Mr. BENSON. In October, 13,000; I do not know how it was in July.

Mr. ROSS. When you went down there, there were about 10,000 laborers.

Mr. SHONTS. I mean, all told, were there not about 12,000?

Mr. ROSS. About 12,000 all told.

Mr. SHONTS (to the committee). There were about 10,000 laborers, as I recollect the figures, about that time.

Senator SIMMONS. There had been something near that number there for several months before you went down there, had there not?

Mr. SHONTS. No; I think not. I think that there had been an increase of about six or seven hundred a month right along. I think there was a gradual increase from people coming in.

Senator SIMMONS. From the information that you got, how long do you think these conditions that you have described had existed there in a greater or less degree?

Mr. SHONTS. I inferred that they had been existing for two or three months, and that they had been getting worse.

Senator SIMMONS. And that during those two or three months nothing had been done for the relief of these people?

Mr. SHONTS. No. Now, I am speaking only of food stuffs. They had been working on the houses.

Senator SIMMONS. Yes; I am not talking about the houses.

Mr. SHONTS. No; there were two questions—one of feeding and one of housing.

Senator SIMMONS. Did the records of the Commission or any other circumstance that came to your knowledge indicate that this subject

had been up for investigation and inquiry, and that any effort had been made to relieve this condition?

Mr. SHONTS. Governor Magoon had had it very close to his mind for quite a little while.

Senator SIMMONS. But had he done anything?

Mr. SHONTS. He had not done anything; he had not taken any active steps.

Senator GORMAN. Well, that was not any part of Governor Magoon's duty.

Mr. SHONTS. No. You see, there was really an interim there, Senator. Wallace had left, and Mr. Stevens had not gotten there. Magoon had charge of government and sanitation, and Wallace had charge, independent of Magoon, of construction and engineering; and it was in the construction and engineering department that the bulk of this labor was employed. So that it really was not the governor's duty, except as a member of the executive committee, and he was there alone; and knowing that we were coming just as soon as Mr. Wallace's place could be filled, and that I would take the new man down there, he let it run along.

Senator SIMMONS. But was it not his duty, if he found conditions of this character there, to apprise the Department here or the Commission of the fact, so that the party or persons who were charged with this responsibility might act?

Mr. SHONTS. Well, I think it was a question of judgment; he knew that we were coming, and they were getting along the best they could until we got there.

Senator KITTREDGE. When did Mr. Wallace leave the Isthmus?

Mr. SHONTS. Wallace left the Isthmus on the 12th of June.

Mr. BENSON. The 12th or 13th of June.

Mr. SHONTS. And we arrived there the 26th of July. I had arranged, as I said, to sail on the 20th of June, prior to the receipt of Wallace's cablegram.

Senator SIMMONS. Governor Magoon was a member of the Commission at that time?

Mr. SHONTS. He was a member of the Commission at that time, and a member of the executive committee.

Senator SIMMONS. Was he the only member of the Commission there?

Mr. SHONTS. Yes, sir.

Senator SIMMONS. Wallace was a member of the Commission also?

Mr. SHONTS. Wallace was a member of the Commission.

Senator SIMMONS. Do you know whether either he or Mr. Wallace had apprised the War Department of this condition of things, which you have described as having existed there for two or three months prior to your entrance on the Isthmus?

Mr. SHONTS. No; I do not know whether they had or not.

Senator DRYDEN. I suppose your attention was directed not so much to the length of time that this condition may have possibly existed as to the fact that it did exist when you got there?

Mr. SHONTS. Yes; and it was an exigency.

Senator DRYDEN. The fact that it might possibly have existed a shorter or a longer time did not receive your particular attention. This is an impression of yours, as I understand, without your having made a special investigation as to the duration of this state of affairs?

**Mr. SHONTS:** That is it. We were confronted with this condition when we reached there; and the question was, What should we do? I did not make inquiries as to how long it had lasted, but I did infer that it had been gradually growing worse. It was not simply bad all the time, but it had been growing gradually worse as the people came in, and as food supplies got scarcer the prices went up; and the governor thought it could wait until we got on the ground and studied the situation, and then we could take such action as we thought necessary. I think his judgment on the subject was all right. I do not think any great damage was done.

**Senator HOPKINS.** Since that action of yours, as I understand you, there has been no trouble about the question of reasonable prices for all food products?

**Mr. SHONTS.** No. If there have been any complaints, they have not reached us. I have not heard of it. And the very best evidence that there is no complaint is this fact: We did not make the patronage of our commissaries compulsory, you understand; all we sought to do was to give the opportunity to all classes of labor to get good food at reasonable prices, and that we did. The result is that our commissaries are being patronized very little by the common laborer.

Now, one of two results must follow: Either they are not eating as much as they should (and if they do not it is their own fault, for the prices are reasonable), or else they are getting what they want at outside places at even cheaper prices than we are selling for.

**Senator SIMMONS.** With reference to the cost of the articles that are chiefly consumed by the common laborers there and in this country, what are the prices there relatively to the prices in this country for the same articles?

**Mr. SHONTS.** I was told the last time I was on the Isthmus that there were many things that we were selling there cheaper than they could be gotten at retail prices in our own stores at home. Those people use yuccas and yams and rice, and our people buy those things down in that country sometimes very much cheaper than they can be bought here.

**Senator SIMMONS.** That is a potato, is it not?

**Mr. SHONTS.** Yes; and we buy them also in Jamaica and surrounding territories, and get them in there at very reasonable figures. I have not heard any complaints at all in regard to the prices.

**Senator SIMMONS.** Taking into consideration the cost of rents and of food supplies down there, is living higher upon the Isthmus for the common laborer than it is in this country?

**Mr. SHONTS.** I do not think so. I think it is cheaper.

**Senator SIMMONS.** You think it is cheaper now?

**Mr. SHONTS.** I think it is cheaper now. You see, we offered to board those people at 30 cents per day, and they do not patronize us. As I say, they must therefore be getting their food and cooking it, and getting along at less than 30 cents a day.

**Senator SIMMONS.** I notice that the Markel contract provided for 40 cents a day.

**Mr. SHONTS.** No; 30 cents a day for the common laborers.

**Senator SIMMONS.** Was it 30 or 40 in the Markel contract?

**Mr. SHONTS.** The Markel contract as originally made was for 40 cents; yes.



**Senator SIMMONS.** But were you feeding them for 80 cents a day at that time?

**Mr. SHONTS.** If you want me to do so, I will be very glad to tell you about the Markel contract, briefly.

**Senator SIMMONS.** I simply want to know about that feature of it. You can go into it more fully afterwards.

**Mr. SHONTS.** As the result of this talk that I had there, the question arose that night whether we should undertake the task of feeding these men ourselves or whether we should contract it. It was agreed all around that in either event we would have to furnish the plant; and I contended that night that if we had to furnish the plant we ought to organize and feed them ourselves. Mr. Stevens, on account of the tremendous amount of work that he knew was involved in every other line, said that he did not want to take that responsibility if it could be helped. Governor Magoon said he did not; and the result of the conversation, which extended over several days, was that I finally agreed to undertake to contract the feeding privilege.

When I came home, with the assistance of Mr. Ross, who was with us, we prepared specifications, and we got bids from several people who are engaged in feeding large bodies of men. Some weeks elapsed, you understand, while this was going on. Before I left the Isthmus, however, the complaints became so serious in regard to the two hotels that the Commission owned that I authorized Mr. Stevens to take them over in order that we might operate them ourselves. So he had those two hotels, and we started on these mess houses.

**Senator SIMMONS.** What I wanted to direct your attention to was, did you begin to feed these men—

**Mr. SHONTS.** I am just coming to that.

**Senator SIMMONS (continuing).** After the time you made the Markel contract?

**Mr. SHONTS.** Yes; I was just trying to answer that question. Mr. Stevens, the day before I left, had taken over the two hotels; and he at once began to start these mess houses, opening our commissaries, as I tell you, that we authorized while we were there.

**Senator SIMMONS.** Yes. Now, what did you charge the common laborer per day from that time?

**Mr. SHONTS.** We commenced to charge them 80 cents a day.

**Senator SIMMONS.** Yes.

**Mr. SHONTS.** And there was an old arrangement by which the gold men paid \$22.50 for their food and \$2.50 for their rooms, which was going along while we were down there before; but the service was so bad and the food was so bad that we took those hotels over, as I told you, the day before I left.

While I was here preparing these specifications and getting these bids conditions seemed to grow worse, and I had two or three messages from Mr. Stevens insisting that we hurry the contracts and get some one there, as conditions were reaching a critical stage. One of his messages, for instance, said that "tainted food was worse than malaria." And, under the feeling that a great exigency existed, we hurried these specifications all we could and we got these bids in and awarded the contract. By the time I cabled the prices in the contract (which was awarded to Markel, he being the lowest bidder), Mr. Stevens had made such progress in taking care of the people, both with the mess houses for the common laborer and with these two hotels for the gold

men, that he answered that he thought that the prices were too high and that they would create a great deal of dissatisfaction, particularly with the gold men.

There had been a great deal of nervousness in regard to health conditions, etc., when we went there; there was really no *esprit de corps*. Mr. Stevens had gotten a good following, had gotten good feeling started, and he did not want anything to happen to spoil the effect of his influence on the men, which he thought a raise from \$25 to \$36 to the gold men would do. Therefore he asked me not to start the contract until we reached the Isthmus; and I therefore immediately showed his message to Markel, and said to him: "I think, under these circumstances, and in view of the further fact that it will be some months before the other hotels and our cold-storage house are finished, that you had better not arrange any further than you have to enter into the performance of this contract." He was very nice about it, and said: "I will be glad to do anything you say about it." I said to him then, "Suppose you agree that in my discretion, after I get to the Isthmus, I can cancel the contract immediately, if necessary;" and he agreed to that.

When I got to the Isthmus Mr. Stevens showed me what they were doing, that we were feeding these common laborers at 30 cents each, and that he thought we were losing some on the gold men. We raised the price to the gold men from twenty-five to twenty-seven and a half, and that has since been charged them. In that connection I have asked the auditor to have made up a statement by months of the results of the operations of both the gold hotels and the silver mess houses, on two bases—first putting in the same charges that the contractor would have to pay; and second, putting in only the direct charges—so that we can have an idea, if we ever do come to the question of contracting, as to exactly what it costs.

Senator SIMMONS. Then, as I understand you, Mr. Shonts, before you entered into the contract with Markel you were feeding these common laborers at 30 cents a day?

Mr. SHONTS. Yes.

Senator SIMMONS. Then it is a fact that when you entered into this contract and agreed to pay, by its terms, 40 cents a day to Mr. Markel, you were feeding these laborers at 30 cents?

Mr. SHONTS. Yes; but we did not know it here.

Senator SIMMONS. You did not know it here?

Mr. SHONTS. No.

Senator SIMMONS. You had not received that information?

Mr. SHONTS. No; and Mr. Stevens there did not know how it was going to come out.

Senator HOPKINS. Whether the Government would make or lose on it?

Mr. SHONTS. He did not know whether the Government would make or lose on it; and we do not know yet how the Government is going to come out on the gold men.

Senator SIMMONS. When you made that contract with Mr. Markel, and when he went to the Isthmus with you in pursuance of this agreement that you had to hold the contract in abeyance until you could go down there to investigate further, did he not agree to so modify that contract that he would be allowed only 30 cents a day for feeding these laborers?

Mr. SHONTS. No; not until after he got there.

Senator SIMMONS. I say, after he got there?

Mr. SHONTS. After we got there we had a talk one morning, and we listened to Mr. Stevens's explanation that while the food he was furnishing these men was not, either in quantity or quality, what the contract had contemplated, it seemed to be good enough to suit them; that they did not ask for any better. Therefore there was no occasion, so long as the food was suitable for the sustenance of health, for charging them more and furnishing them more than they wanted; and therefore we were in a position, by reducing the amount of food and the various kinds of food, to furnish them what they wanted at 30 cents a day. Then Mr. Markel, after hearing that explanation, said that he thought that that was right, and that he could afford to furnish what they were furnishing at 30 cents a day.

Senator SIMMONS. The proposition was a change of menu?

Mr. SHONTS. Yes; that was all—a question of quantity and quality and variety of food.

Senator HOPKINS. If you are through with the food question, Mr. Shonts, I would like to have you go on and tell us the conditions that you found there for housing these people, and what you have done since?

(As Mr. Shonts was starting to answer the question of Senator Hopkins, it was announced that the hour of recess had come, and that the committee would take a recess until 2 o'clock p. m.)

Mr. SHONTS. Shall I answer that question the first thing when I come back, Senator, or wait until you come?

Senator HOPKINS. If some one else takes up some other subject, you can wait; but if they go on with this, all right. I will be in at half-past 2.

(The committee thereupon took a recess until 2 o'clock p. m.)

#### AFTER RECESS.

#### STATEMENT OF THEODORE P. SHONTS, ESQ.—Continued.

The CHAIRMAN. Proceed, Mr. Shonts, if you are at a point where you are ready to proceed, without questions.

Mr. SHONTS. Senator Hopkins asked me a question just as we took the recess, as to what we were doing in regard to furnishing additional housing for the men, I having been discussing, as you remember, the question of food.

(By request the stenographer read the question referred to, as follows:)

“Senator HOPKINS. If you are through with the food question, Mr. Shonts, I would like to have you go on and tell us the conditions that you found there for housing these people, and what you have done since.”

The CHAIRMAN. Senator Hopkins will be away for ten or fifteen minutes, from what he said to me, so you might as well answer the question now, and he can continue the inquiry further when he comes in, if he so desires.

Mr. SHONTS. As I recollect the figures, they had repaired about 350 of the 2,100 houses left there by the French company when we reached the Isthmus. There had been some delay in getting lumber forward, which had prevented their making more rapid progress in the repair-

ing of those old houses and the construction of new ones. Lumber began to arrive more free, however, and we stopped work in other directions and took the labor employed in other directions and employed it in distributing the lumber, and every person on the Isthmus who could wield a plane or drive a nail went to work on this housing question, with the result that, I understand, we have now about 1,000 of the 2,100, or probably a few more, of those houses repaired, and we have built a great many new houses. We are about finishing the Tivoli Hotel, which is the largest hotel we have undertaken. It is located on Ancon Hill. We have built an annex to the Culebra Hotel as large as the original hotel there. We have put another story on the Washington Hotel. If you want the exact figures as to the number of houses we have constructed new, and repaired, I can get them for you from my office. I have not got them in my mind.

Senator MORGAN. If we should change the method of constructing the canal from the present governmental plan to the contract plan, can we have these houses prepared for the contractors to take their hands into?

Mr. SHONTS. Yes, sir; all the work we have done in regard to housing and making arrangements for food supply will be useful to any contractor, and I believe the fact that we have done this work would enable us to get much more satisfactory bids for the work than we could otherwise obtain.

Senator MORGAN. There is no doubt about that. Now, looking to the possible change in the system of construction, I suppose, and I wish to ask you if you concur in the opinion, that it would be proper for the Government, in every event, to own and have the control of every building on that Zone?

Mr. SHONTS. I do believe so.

Senator MORGAN. Yes.

Mr. SHONTS. I think the Government should have control of the plant necessary to take care of the men.

Senator MORGAN. So that if we let it out by contract, we would make an arrangement with the contractors either for a lease, or to take it into the contract in some form, for furnishing and keeping in repair the necessary buildings for the accommodation of their force?

Mr. SHONTS. And hold them responsible for the proper care of the plant turned over to them.

Senator MORGAN. If we should change from the present system to the contract system, we probably would not need as many employees there as we have at present, and the hotels that you have there might be quite sufficient to maintain the future force of employees of the Government who might be there in superintendence over the affairs of the canal?

Mr. SHONTS. Yes, sir; and I think that those we have built are admirably located for that purpose. For instance, no matter what method is employed in building the canal, the Government should keep entire charge of two things—the government and the sanitation of the territory.

Senator MORGAN. Yes.

Mr. SHONTS. That necessitates, of course, a governor of the Zone.

Senator MORGAN. And housing?

Mr. SHONTS. And the housing of the people that we do have there. The governor of the Zone should be located at Ancon, which is next to

and practically a part of Panama, except that it is up on the hill, on account of his relations with the Panaman Republic, as a matter of convenience. The most important hotel we have built, which we are just finishing, is the Tivoli, on Ancon Hill, and, primarily, the purpose of that hotel is to give a place for the clerks and heads of the Government and sanitary departments. So that would be admirably located.

Senator MORGAN. When these hotels that you are already constructing and have constructed are completed you will have sufficient hotel accommodations for the present necessities of the canal?

Mr. SHONTS. Yes, sir.

Senator MORGAN. Concerning the cabins or shanties, whichever you please to call them, for the accommodation of the laborers, are they built in nests, or in connection, or are they single cabins?

Mr. SHONTS. They are largely single cabins.

Senator MORGAN. About what is the cost of one of those cabins for a laborer?

Mr. SHONTS. Per laborer?

Senator MORGAN. For a laborer. About what is the cost of one of those cabins?

Mr. SHONTS. I will have to get that for you, Senator.

Senator MORGAN. You will have to get that?

Mr. SHONTS. I will have to get that. I can describe them to you. They are wooden buildings, set up from the ground 5 feet or more, according to the lay of the ground, so as to have ventilation below. They are not all of the same size; there is no uniform standard. We took them just as we found them. In putting men in them we follow the rule of allowing 500 cubic feet of air to each occupant of each building. That is a rule laid down by the sanitary department as being as small a quantity of air as should be given them to maintain a healthy condition. We put in sanitary cots—two rows. In some cases they are three rows deep, but ordinarily only two.

Senator MORGAN. One above the other?

Mr. SHONTS. Yes, sir; one above the other. They are not all of the same type, but they have all been adopted by some of the Government Departments, and they are all thoroughly sanitary. Then we have smaller cottages for the families.

Senator MORGAN. Have those cots metal frames?

Mr. SHONTS. Yes, sir; they have.

Senator MORGAN. Have they wire bottoms or canvas bottoms?

Mr. SHONTS. Mr. Ross, I think, can tell about that definitely.

Mr. ROSS. They have galvanized-iron frames, with canvas bottoms, so that they can turn the water on them and clean them without taking the bottoms off.

Mr. SHONTS. They did start in manufacturing these with wooden uprights, but they were condemned by the sanitary officers, so we abandoned those and went into the market and bought these metal ones.

Senator MORGAN. What sort of roofing is there on those cabins?

Mr. SHONTS. The better class of houses have tiled roofing, but in the cabins it is wood.

Mr. ROSS. And galvanized corrugated iron.

Mr. SHONTS. Both.

Senator MORGAN. Are any shingles used?

Mr. SHONTS. I do not think there are any shingles there. I do not remember any.

Senator MORGAN. When you have wood roofs, they are composed of planks?

Mr. SHONTS. Yes, sir. There are not very many of those. I only give them to you as I remember seeing them. It may be that some of those that I saw of wood we had not overhauled, and that my mind is not quite clear about that.

Senator MORGAN. With the allowance of air there and the construction of those cabins and the furnishing of cots and, I suppose, benches and chairs?

Mr. SHONTS. Chairs; yes, sir.

Senator MORGAN. And perhaps a table?

Mr. SHONTS. An oak table and chairs; yes, sir; and cots.

Senator MORGAN (continuing). Is that a fairly comfortable and wholesome place of abode for a laborer when he is not engaged at work?

Mr. SHONTS. It is; yes, sir.

Senator MORGAN. Some of those laborers have their families with them?

Mr. SHONTS. Yes, sir.

Senator MORGAN. Are you disposed to encourage that amongst the laborers?

Mr. SHONTS. As fast as we can provide quarters for them, because, generally, there is a feeling of contentment that a man without his family does not possess.

Senator MORGAN. That means the wife and children, if they have any children?

Mr. SHONTS. The wife and children; yes, sir.

Senator MORGAN. Then you have a provision for the education of such people?

Mr. SHONTS. We have schools.

Senator MORGAN. For the elementary branches of education?

Mr. SHONTS. Regular schools; yes, sir. There are some in active operation, and more being established.

Senator MORGAN. I suppose priests and preachers of different denominations visit freely there?

Mr. SHONTS. They all do. We encourage all of them.

Senator MORGAN. And there are little churches?

Mr. SHONTS. They have little churches—buildings set aside for church purposes.

Senator MORGAN. And Sunday schools and all of that?

Mr. SHONTS. Yes, sir. If you will permit me, in that connection, on my first trip I asked representatives of the National Civic Federation, who had charge of the recreation department, their views as experts on the best method of entertaining these people, to give them some mental occupation outside of their purely manual labor; but we found the conditions so pressing in regard to both their housing and food supply that we had to abandon that temporarily.

Senator MORGAN. You have had an acquaintance, I suppose, with very considerable or very large camps of laborers in the construction of railroads through the United States?

Mr. SHONTS. Yes, sir.

Senator MORGAN. How does the provision that is made there for the comfort of laborers compare with the railroad camps that are considered to be sufficiently comfortable through the country here?

Mr. SHONTS. They are very much superior to anything I have ever seen in this country.

Senator MORGAN. I think that is an important point.

Mr. SHONTS. I want to say that before I ever went to the Isthmus, while Mr. Wallace was still in this country, I discussed this question with him. I said: "Mr. Wallace, I do not see where you have been making preparation for feeding these people." And he made the very point that I have made now; and he was honest in it. It was just a question of judgment. I think any person would have acted at that time probably in the same way, or to a certain extent, at least, in the same way. He said: "Shonts, you and I have put up in our experience at the front in construction work with so much worse than these people are putting up with down there that they ought never to complain at all." But the difference was, and it became accentuated as the population increased, that we had here a productive population that always had a surplus to take care of any increase locally of a population, whereas, as I explained this morning, they did not create a surplus down there, and with the big increase of the population food became scarce and prices went up.

Senator MORGAN. Do the hills that flank the water courses there, all of them, furnish an abundant supply of spring water for the accommodation of 30,000 people, for instance?

Mr. SHONTS. There is plenty of water there, properly distributed, to take care of 30,000 people; yes.

Senator MORGAN. There is plenty of water there?

Mr. SHONTS. Yes; and wherever we establish a camp we first drain the surrounding territory—that is, if it has this marsh around it—and we cut down the vegetation, so as to protect them in that way. We put in drains, so as to take care of the sewage, and then we bring in the water. We are trying to make every labor camp along the whole route as healthful as are the cities at the ends of the route.

Senator MORGAN. I suppose there are proper elevations for conducting the water from the hills at these camps?

Mr. SHONTS. Oh, yes, sir; there is no trouble about that.

Senator MORGAN. So that we can rely upon an abundant supply of good water?

Mr. SHONTS. Yes, sir; and they told me that the water in Panama, which is from the same source that now supplies Culebra and, I think, Empire, had been analyzed and was as pure as the Croton water in New York City.

Senator MORGAN. That water comes from the Rio Grande, does it not?

Mr. SHONTS. Yes, sir. If you will just permit me on that point—I told you where the new Hotel Tivoli was to be built, and why it would be necessary, no matter what form of building the canal was adopted, whether by contract or otherwise. The home of Mr. Stevens, chief engineer, is just about finished at Culebra cut, with an administration building for his force, so that he will be out on the line of the work with his force out there on that high hill. Then I gave instructions to have the accounting department have a similar administration building at

Empire, which is just a mile away. That will take all of the employees out of the city of Panama and put them there on the line of their work, or at Ancon, where Governor Magoon will be located with his house and office of administration. So that whatever the type of canal these people all will have to be there, and their houses are located right on the work.

Senator MORGAN. Is the reservoir that supplies Panama with water located on Sosa or Ancon Hill, either?

Mr. SHONTS. The reservoir?

Senator MORGAN. Yes; the reservoir that supplies Panama.

Mr. SHONTS. Well, it is just at the edge of Ancon, there. They are putting in a storage tank there. It is right at the edge of the hospital grounds, there, is it not, Mr. Ross?

Mr. Ross. Between the railroad and the hospital, right close to the new Tivoli Hotel.

Mr. SHONTS. If you have a map showing the relationship of the hospital grounds to the railroad, it is right between them.

Senator MORGAN. The water will be impounded in the reservoir and carried from there to Panama?

Mr. SHONTS. Yes, sir.

Senator MORGAN. And is supplied by the Rio Grande?

Mr. Ross. It comes through a cast-iron pipe and is brought in from the Rio Grande alongside the Panama Railroad track to Ancon Hill.

Mr. SHONTS. That is on the right of way of the railway.

Senator MORGAN. That is likely to be a permanent structure?

Mr. SHONTS. Yes, sir.

Senator MORGAN. No matter what form of canal is built there?

Mr. SHONTS. That is likely to be permanent. It may be that part of the pipe line will have to be changed if a lake is created west or south of the cut.

Senator MORGAN. As proposed by the minority?

Mr. SHONTS. Yes, sir. In that event the whole line of the railroad will have to be switched around, and we can make it follow the line of the railroad.

Senator MORGAN. You would get your water in that event from the new lake?

Mr. SHONTS. No, sir. We would continue to get our supply from the Rio Grande reservoir.

The CHAIRMAN. When you talk about the type of the canal, please proceed on other lines, unless the Senator wishes to proceed on this line, in which case we will ask the reporters to retire. If not, we will go right along with the other subjects that Mr. Shonts was discussing and reserve that for another time, if it is agreeable to you, Senator.

Senator MORGAN. I was trying to get in my own mind the situation there.

Mr. SHONTS. I think I drifted into that more than the Senator did.

The CHAIRMAN. Yes; you mentioned something about it.

Senator MORGAN. I think the water supply is about the first requisite of good sanitation. Therefore I was particular to inquire about it.

Senator SIMMONS. I would like to ask one question about the water: Mr. Shonts, did not that analysis that you spoke of a little while ago, of the water supply of Panama coming through this reservoir, show an amount of unhealthy vegetable organism in the water?



Mr. SHONTS. Not as reported to me. I have never seen the analysis. This was told to me by some of the officers on the ground as to the result of the analysis.

Senator SIMMONS. I have seen that statement somewhere on the record.

Mr. SHONTS. I do not think it is true. I never heard it there at all. Everyone spoke in the highest terms of the quality of the water.

Senator SIMMONS. Do you not intend to install some sort of filtration process there?

Mr. SHONTS. No, sir; I never heard anything except what is in line with what I have told you as to the purity of the water.

Senator MORGAN. It is quite a different question on the other side, over toward Colon, is it not, as to the purity of the supply and the abundance of it?

Mr. SHONTS. Well, Mr. Stevens tells me that he has made a study of that question, and that there is no trouble about getting plenty of water.

Senator MORGAN. If we had 30,000 laborers in regular employment in constructing the canal, would it be necessary to enlarge the house room for them much beyond what now exists?

Mr. SHONTS. We now have facilities for comfortably taking care of the force we have. We are developing them all the time, and we are only aiming to take on additional men as fast as we provide facilities. We would have to continue to provide quarters as fast as we increased the force; but we have got a good many of those houses yet to work over, which costs very much less than new houses would.

Senator MORGAN. Do the laborers find accommodations, sleeping rooms, etc., among the villages and on the Chagres River?

Mr. SHONTS. I could not answer that. I don't know.

Senator MORGAN. Do they keep any little hotels or restaurants or eating houses in those villages?

Mr. SHONTS. Yes, sir.

Senator MORGAN. For the accommodation of laborers?

Mr. SHONTS. They keep them for the accommodation of anybody?

Senator MORGAN. For the accommodation of anybody that comes there?

Mr. SHONTS. Yes, sir; anybody that patronizes them.

Senator MORGAN. There is a good deal of rum manufactured in the district there, is there not?

Mr. SHONTS. I understand so.

Senator MORGAN. It is manufactured out of the sugar cane?

Mr. SHONTS. Yes, sir; I understand so.

Senator MORGAN. Wild and otherwise? And are there any other of these Mexican drinks, such as mescal, manufactured there?

Mr. SHONTS. I have not heard of anything except rum.

Senator MORGAN. Someone told us the other day that the rum was of very superior quality as to purity.

Mr. SHONTS. The only experience I had was that it smelled strong enough. We ran into a fellow with a handcar that was loaded up with it, and rum was in the air for a mile or two.

The CHAIRMAN. Which was loaded? The car or the man? [Laughter.]

Mr. SHONTS. If the men were loaded, they escaped all right. Possibly it was a loaded man's luck, because they escaped. There were none of them hurt.

Senator MORGAN. That subject of the production and sale of rum is one for regulation rather than for prohibition, is it not?

Mr. SHONTS. I would say so.

Senator MORGAN. It is not harmful if it is regulated and controlled?

Mr. SHONTS. No, sir.

Senator MORGAN. Probably it is necessary for certain classes of people.

Mr. SHONTS. They rebelled against taking quinine, but we give them quinine and a little gill of rum, and they take it first-rate now, and there is no complaint.

Senator MORGAN. If you had your preference for a beverage for the people there, as between rum and beer, which would you adopt?

Mr. SHONTS. Why, I have never had enough experience with that subject to answer the question intelligently.

Senator MORGAN. That is rather a medical question than otherwise.

Mr. SHONTS. I think preference should be given to the drinks that are indigenous to the climate and people.

Senator MORGAN. All tropical people on the earth, including those in the darkest portions of darkest Africa, manufacture stimulating drinks, everywhere around the world; and we may very well conclude from that fact, I think, that they have an instinctive knowledge that it is necessary in that climate to keep the pores of the skin open.

Mr. SHONTS. But there is very little drunkenness that I have ever seen or heard of.

Senator MORGAN. The people do not get drunk there?

Mr. SHONTS. Very little; and there is very little disorder.

Senator SIMMONS. In respect to the analysis of this water, I find in Governor Magoon's report, page 41 of the Annual Report of the Isthmian Canal Commission for the year ending December 1, 1905, after reciting the facts with reference to the reservoir supplying the various towns with water, he says:

"In order to ascertain the quality of the water supplied from these reservoirs, chemical analyses have been made by Dr. Arthur I. Kendall, acting chief of laboratory, Ancon Hospital, resulting in a showing that the water is of good quality, but, owing to the watersheds being covered with tropical growth, vegetable matter is found. The entire elimination of foreign organisms will require the installation of filtration plants and the use of sterilizers, and these will be supplied. Doctor Kendall reports that 'the character of the water, as shown by bacterial analyses, is much better than it was under the old system, in which well and spring water was used.'"

Mr. SHONTS. That, of course, is official. I gave it just as they told it to me, while they were making the analyses there. The first results were told me while I was on the ground, and the question of installing filtration plants has not come up before the Commission for action.

Senator GORMAN. Now, Mr. Shonts, have you given the committee a full statement of the conditions that you found when you left the Isthmus in July?

Mr. SHONTS. Yes, sir.

Senator GORMAN. You have also, in an answer to Senator Hopkins's question, told us the number of houses that you have prepared and built to accommodate your force?

Mr. SHONTS. Yes, sir.

Senator GORMAN. How many more houses within the near future—that is, within the year—do you contemplate building to accommodate your people?

Mr. SHONTS. We have plans for six hotels, I think, two of which are now approaching completion. We had expected and do expect to continue repairing these laborers' houses as fast as we can, to take care of the increased number of men. We will have to anticipate some, now, until we know the type of canal. We will not know just how to figure for the number of men,\*but we are going ahead on the assumption that we will have use for all the houses we get repaired until the type of canal is decided upon.

Senator GORMAN. Does the estimate you have submitted, both in the act that was passed at this session, for about \$11,000,000, I think, and in the \$5,600,000 that is now pending, include your estimate for all the buildings to be constructed between now and July next, and the material therefor?

Mr. SHONTS. Yes; that is supposed to include what we figured we would have use for up to that time.

Senator GORMAN. Yes. And by that time you hope to have the type of the canal determined?

Mr. SHONTS. By that time we hope—earlier than that—we hope to have the type of canal determined; our plans all figured out in detail, fitting the type of canal selected; the plant that we have already purchased largely installed, ready then either to carry on the work ourselves rapidly and on a comprehensive scale, or to let it out by contract.

Senator GORMAN. So that, in either case, that is to say, either by contract or by the Government doing it by day labor, the appropriations, in your judgment, have been made sufficient to give you all the equipment and all the accommodations for your laborers that you can properly utilize so early in this work?

Mr. SHONTS. Until July 1; yes, sir.

Senator GORMAN. Until July 1?

Mr. SHONTS. Yes, sir.

Senator GORMAN. About how many laborers and other employees does that estimate include?

Mr. SHONTS. We figure in that estimate a 25 per cent increase in the gold supply and a 50 per cent increase in the silver supply.

Senator GORMAN. What will that amount to in numbers of the gold men, as you call them?

Mr. SHONTS. We have now, as I recollect the figures, about 2,600 gold men on the roll.

Senator GORMAN. You mean by gold men clerks and skilled men, I suppose?

Mr. SHONTS. The broad distinction is white and black.

Senator GORMAN. Yes.

Mr. SHONTS. We pay nearly all our white men from the States in our own currency—that is, gold. We pay the laborers in silver, because they patronize the stores that have that as their medium of exchange.

Senator GORMAN. I understand.

Senator HOPKINS. They are familiar, also, with that money?

Mr. SHONTS. They are familiar with that basis of money; yes, sir.

Senator GORMAN. We understand that. But, in point of fact, the white men are engaged on higher classes of labor?

Mr. SHONTS. Yes, sir.

Senator GORMAN. They are not the ordinary laborers?

Mr. SHONTS. We did have some white men on the silver rolls that were working for us, but we are getting them into the gold rolls as fast as possible. Mr. Benson can tell whether they are nearly all on the gold rolls.

Mr. BENSON. Yes; I think they are almost entirely so.

Mr. SHONTS. They started in first with the distinction of monthly and hourly men, but we worked the hourly high-class white labor into the gold roll.

Senator GORMAN. Very good. Now, in point of numbers, what do you estimate by the 1st of July you will be prepared to use of men to dig the canal? In other words, to use your expression, "to make the dirt fly?"

Mr. SHONTS. In point of numbers, figuring on what I have just said, there ought to be about 3,200 to 3,500 white men employed and about, I should say, 20,000 to 23,000 or 24,000 colored men. That ought to be about as many as we could take care of.

Senator GORMAN. Of the ordinary laborers?

Mr. SHONTS. Yes, sir.

Senator GORMAN. That embraces both the work under the Canal Commission and the railroad?

Mr. SHONTS. No; this is all for the Commission. We treat them separately in all our estimates.

Senator GORMAN. Yes. How many will be employed at that time, or would you have employed, on the railroad?

Mr. SHONTS. I do not know why the railroad force should be increased very much. In fact, if we are fortunate enough to continue our freight movement on a normal basis, we ought to be able to reduce some of our laboring force, for two reasons: First, we have had a very severe congestion to contend with, and in order to get that congestion cleared up, we have had to work a lot of extra labor. If we handle our business on a normal basis, that extra labor will not be required. Second, we have installed a crane on one of our wharves that it is estimated will do the work of 200 men, and save time in handling from the ships to the cars. That ought to make a reduction. In other words, when we get our improvements that we are now making on the railroad in operation, we ought to be able to handle more business with less men than we have been requiring during the congested period through which we have been passing.

Senator GORMAN. That includes the labor necessary for doubling your track along the line?

Mr. SHONTS. The labor for doubling the track? No; I was not thinking of that, Senator. I was thinking of the terminal work that has been going on. The labor for doubling the track, of course, would be an increase on that common labor.

Senator GORMAN. Yes.

Mr. SHONTS. That might more than offset the other; but we have never had any trouble in taking care of the fluctuations in the railroad force.

Senator MORGAN. I would like to ask you a question right there, about the railroad: You spoke of doubling the track; do you mean by making a line running along the present road?

Mr. SHONTS. Yes, sir; what I mean by that is this: Mr. Stevens has been doing a great deal of work in Culebra cut, putting in permanent tracks on the various levels of the cut. What I mean by permanent tracks is taking up the light French rail, which was not as wide on the face as it was high, and which easily turned over, and laying a 70-pound American engineer standard rail.

Senator GORMAN. On the main line?

Mr. SHONTS. On the main lines in the cut. This meant laying them, ballasting them, running them on each level to yards along the main line of the railroad. To illustrate: If we were to decide that we could waste to good advantage ten or fifteen or twenty million yards of this Culebra cut out in the Pacific, we would double track from the point where these tracks come down from the various levels and join the main line to a point where we would leave the main line to build to a dumping terminus, from which we would unload the cars into scows to be taken out on the ocean and dumped. That part of the line would be double tracked under this agreement. And under an agreement between the railroad and the Commission, the Commission, because that double track is required exclusively for the construction of the canal, would pay for it out of canal funds; but the subsequent maintenance of both tracks, and of this track in particular, would be kept up by the railroad, and the trains of each—i. e., the railroad and the Commission—would use both tracks indiscriminately.

Senator GORMAN. But they would be under the control of the railroad?

Mr. SHONTS. Yes, sir; there would be one set of dispatchers, of course.

Senator GORMAN. And there would be a fixed charge for the service?

Mr. SHONTS. Yes, sir; there would be a fixed charge for the service, which has not yet been decided upon.

Senator GORMAN. I did not intend to come to that part for a moment, but as you have alluded to it, we would like to have a copy of that contract between the Commission and the railroad, so as to have it inserted in your statement right at this point where it has been brought out.

(The contract referred to is as follows:)

Memorandum of agreement made and entered into this eighth day of November, 1905, by and between the United States of America, acting by and through the Isthmian Canal Commission, parties of the first part, and the Panama Railroad Company, a corporation created by and existing under the laws of the State of New York, party of the second part.

Whereas the main line of the railroad of the party of the second part as now existing has only a single track, which is adequate for the purposes and business of the party of the second part; and

Whereas the necessities of the work of constructing the Panama Canal, in which the parties of the first part are engaged, require that additional track shall be constructed on the said main line of railway, so that it shall have a double track, in whole or in part, and the parties

of the first part have requested said party of the second part to cause such additional track to be constructed; and

Whereas the party of the second part is willing to construct such additional track upon the agreement that the cost thereof be borne and defrayed by the parties of the first part, and not deeming the same necessary for its own purposes is not willing to construct the same at its own expense; and

Whereas the parties of the first part recognize that it is proper that the cost of such construction, being incurred for their benefit, should be borne by them and are willing to advance to the party of the second part the money necessary therefor upon the terms and conditions hereinafter set forth.

Now, therefore, this indenture witnesseth, that the parties hereto for and in consideration of the premises and of the covenants of the respective parties hereto hereinafter expressed, have covenanted and agreed, and by these presents do covenant and agree, to and with each other as follows:

First. The party of the second part shall proceed with all convenient speed to construct additional track along such part of its main line from the city of Colon to the city of Panama, in the Republic of Panama, as the party of the first part shall from time to time request, so as to convert said line into a double-track railroad to that extent, and shall construct such additional line so as to be in all respects equal to the existing main line of railway of the party of the second part between said points.

Second. The cost of constructing such additional track shall be borne and defrayed by said parties of the first part, as follows:

The cost to the party of the second part of such portions of said second track as have been heretofore so constructed shall be paid to said party of the second part by the parties of the first part, acting as aforesaid, upon presentation to them of statements by the party of the second part, showing such cost and due verification thereof by the parties of the first part. For the cost of all such additional track hereafter constructed monthly statements shall be rendered by the party of the second part to said Isthmian Canal Commission at the end of each month, showing such expenditures and the amount of said statements, and within thirty days after the same shall have been so rendered the amount thereof shall be paid by the parties of the first part to the party of the second part.

Third. Any additional or other expenses occasioned by or through the building of such additional track for sidings, switches, stations, storehouses, terminal facilities, and the like, shall be borne and defrayed by the party of the second part, and the parties of the first part shall not be in any way chargeable therewith.

Fourth. The party of the second part shall, at its own cost and expense, and during the term of this agreement, maintain such additional track in good order and condition equal to the track now existing; and at the end of said term any material, rails, and other supplies paid for by the parties of the first part under this agreement, and then in the possession of the party of the second part, shall become and be the property of the said parties of the first part.

Fifth. During the term of this agreement the parties of the first part shall be at liberty to use any lines of track, sidings, or switches

of the party of the second part upon the Isthmus of Panama, connecting with or used in connection with any lines of track, sidings, or switches belonging to the parties of the first part upon said Isthmus; and the party of the second part shall likewise be at liberty to use any line of track, sidings, or switches on the Isthmus of Panama belonging to the party of the second part, connecting with or used in connection with any line of track, sidings, or switches of the party of the second part upon said Isthmus without any charge or payment by either of the parties hereto against the other for or on account of any such use. Provided that no such use by either party of the tracks, sidings, or switches of the other shall be such as to prevent the reasonable use of the same by the party to whom they belong; and such use shall be subject at all times to the rules and regulations of the party to whom such tracks, sidings, and switches respectively belong concerning the operations of the same.

Sixth. This agreement shall continue and the rights hereunder acquired shall be enjoyed by the parties hereto for the term of fifteen years from the eighth day of November, 1905, and shall extend to and be obligatory upon the successors and assigns of the respective parties hereto.

In witness whereof, the parties of the first part have caused these presents to be signed by the chairman of said Isthmian Canal Commission, attested by its secretary, and the seal of said Commission to be hereto affixed; and the party of the second part has caused these presents to be signed by the assistant to its president and attested by its assistant secretary, and its corporate seal to be hereto affixed, the day and year first herein above written.

ISTHMIAN CANAL COMMISSION,  
By T. P. SHONTS, *Chairman*. [SEAL.]

Attest:

JOSEPH BUCKLIN BISHOP, *Secretary*.

[SEAL.]

PANAMA RAILROAD COMPANY,  
By E. A. DRAKE,  
*Assistant to the President*.

Attest:

T. H. ROSSBOTTOM, *Assistant Secretary*.

A true copy.

W. LEON PEPPERMAN, *Assistant Secretary*.

(For general auditor.)

Senator GORMAN. I understand now, Mr. Shonts, that from July, when you went down to the Isthmus, or from the date you took your position as chairman until now, your efforts and the efforts of the engineers and other employees under you have been devoted solely, first, to the ordinary engineering; second, to furnishing laborers for the sanitary department; third, toward the construction of the buildings, and fourth, in assembling the material, including all dredges, steam shovels and whatnot, for the completion of this work. Is that a correct statement?

Mr. SHONTS. As far as you have gone.

Senator GORMAN. What else have you done?

Mr. SHONTS. We have been improving the terminal facilities.

Senator GORMAN. Yes; that is, of the railroad?

Mr. SHONTS. Yes—not all railroad; no, Senator. If you will excuse me, I will go on—

Senator GORMAN. I should be glad to have you proceed in your own way.

Mr. SHONTS. I will say that we, in drawing a line of demarcation between the railroad and the Commission, have followed the broad principle that whatever the railroad had that was sufficient for its ordinary traffic, regardless of the canal, should be repaired and maintained, and enlarged if necessary, at the railroad's expense; but whatever was required primarily to take care of the construction of the canal, whether it was docks at which to unload the material, or yards in which to handle the material, or buildings to store it in, or things of that kind, that was Commission work. Following that broad line, we have been putting in wharves around the point at Cristobal, which the Commission will pay for, but which the railroad is building.

Senator GORMAN. Yes.

Mr. SHONTS. In order to provide facilities to get our materials in and unloaded and distributed with reasonable dispatch and economy.

Senator GORMAN. So that is embraced as a part of the work of preparation, just as is the construction of your houses?

Mr. SHONTS. It is a part of the preliminary work.

Senator GORMAN. Of the canal.

Mr. SHONTS. Then, in addition, there is the work that Mr. Stevens has been doing, of constructing and reconstructing tracks in the cut and connections of these tracks with the railroad. We have not done very much work in actual excavation. We have kept about six shovels going all the time to shape up the levels for the proper installation of the largest available number of shovels as fast as we get them there and get them set up.

Senator GORMAN. So that, strictly speaking, you have not done anything from July until now, in the actual digging of the canal, other than as incidental to the making of these arrangements?

Mr. SHONTS. That is it.

Senator GORMAN. And did you find when you went down there that Mr. Stevens's predecessor, Mr. Wallace, had been at work digging the canal?

Mr. SHONTS. When we got down there we found certain conditions existing; we know from the reports that certain quantities of excavation had been made. We know that they were down on the books as having cost certain figures. We found by going into it that certain elements were taken into consideration in arriving at those figures. I think Mr. Wallace's idea was to include in his elements of cost those things which he thought a contractor would pay for if a contractor were doing the work.

Senator GORMAN. Yes.

Mr. SHONTS. And we found that the cost varied, with the plant as he established it, from 43 cents as a minimum in the dry season to as high as \$1.53 when the wet season came on. And we are still and have been doing more or less of that work, and we have gotten it from \$1.53 back into the 80's—81 or 82 cents the last monthly report shows, I think. But that is incidental to the general plan, as you have stated, and was not done with the idea of making excavations for the purpose of making a showing.



Senator GORMAN. Exactly. Do you concur with the report of the Commission to the Secretary of War that that was an error—spending half a million dollars in the attempt to dig before they were ready?

Senator HOPKINS. Where is that statement, Senator, that you have reference to?

Senator GORMAN. I can not tell you at this moment, but I can refer to it.

Mr. SHONTS. I have not seen that statement, that a half a million has been wasted.

Senator GORMAN. You reversed the policy, at all events?

Mr. SHONTS. We thought we would get ready first and dig afterwards.

Senator GORMAN. Why did you reverse it? I will find the statement, Senator Hopkins. It is in the report.

Mr. SHONTS. I think if Mr. Wallace had stayed there he would have encountered the same condition of things; that is to say, when you have enough population in there, and this condition arose that did arise, he would have had to turn around and make arrangements to properly care for and feed the people before he could have gone on directly with the work. I think he would have come to that conclusion himself. Anyway, we found the conditions as I have stated them to you this morning and did our best to remedy them, and rather than make two bites of a cherry we thought we would run the risk of being criticised for not going ahead and “making the dirt fly,” to use that expression, but would make thorough preparation in the meantime, preparing our plans comprehensively in every part of the work, so that when we could properly feed the people and properly house the people, and felt that the surroundings were sanitary, we would be ready, when we did commence, to more than make up for any apparent loss of time in commencing the actual digging. More than that, we had neither engines nor cars to move material with.

Senator MORGAN. Just a second interruption there, in regard to the dirt flying. Has not that pressure been a disturbing element in the work of preparation for the digging of this canal—the pressure that the dirt should be flying?

Mr. SHONTS. Well, it has not since we went down there, Mr. Senator. I was told that we would be criticised for it, but I am very glad to say that, so far as I know, public opinion has rather approved of our getting ready before we did enter into the broad, active work of construction; so that I say it did not make any difference with us.

Senator GORMAN. Are you an engineer, Mr. Shonts?

Mr. SHONTS. No, sir.

Senator GORMAN. You are simply a railroad manager and operator and not an engineer?

Mr. SHONTS. I am not an engineer.

Senator GORMAN. So that, after consultation with the new engineer and the staff that you relied upon, you came to the conclusion that it was not a wise thing to attempt, on any large scale, to dig until you had made all the preparations?

Mr. SHONTS. Yes; that was our conclusion.

Senator GORMAN. And that, therefore, the attempt to dig prior to making the arrangements was a mistake?

Senator HOPKINS. Well, now, Senator—

Senator GORMAN. In his judgment, I mean. I want his judgment.

Senator HOPKINS. Well, I think, Senator, that his testimony does not go to the point of saying that they did that on a large scale.

Senator GORMAN. I want to get at the facts.

Senator HOPKINS. My judgment is, from the testimony, that this was all experimental, even with Mr. Wallace; that he kept on with his borings at the different points on the canal there, and that the work that he did was of a preliminary character rather than going into the details of the permanent work.

Senator GORMAN. Let us get at the facts.

Senator HOPKINS. I thought—if you will excuse me, Senator—that it was putting it just a little differently to state it as you did in your question.

Senator GORMAN. There can not be any question about the facts. The record is here, both in Mr. Shonts's statement and the Secretary of War's statement. The statements are in the report. But I am asking him if the attempt to expend half a million dollars in building the canal—without reference, now, to the preparations especially—was a mistake.

Mr. SHONTS. I think, Mr. Senator, of course, that "hind sight" is always better than foresight.

Senator GORMAN. Yes.

Mr. SHONTS. And that if no attempt had been made to move material until all the preliminary work had been accomplished, it would have been better. But the material that was moved had to be moved, and from the fact that it was moved, it will not have to be moved again; so that it was not lost. We had the benefit of all Mr. Wallace's experience, you see, to guide us; but when he went down there at first, if he had looked around there and said: "Before I make a move in the way of construction I will get a plant, and I will install it, and in the meantime I will get the sanitary and the other preliminary work done;" I think that probably that would have been the wisest course. But what was done was very useful, and we have had the benefit of it. Some of it was especially useful. The engineering work was especially useful to the formation of an intelligent opinion by our engineers within the time that they made up their minds.

Senator HOPKINS. Was not the removal of the dirt there at Culbra cut and at other points along there useful in this, that it gave you a more intelligent basis upon which to determine the cost of excavation, both in the dry and the wet seasons?

Mr. SHONTS. I am on record that the most useful result of what has been done in the way of excavation is to give us an idea of what will be a fair price for both excavation and dredging.

Senator GORMAN. Yes.

Mr. SHONTS. We did undertake at one time to ask for bids for dredging, about the time Mr. Wallace left, at Colon Harbor; but the bids we received, in the light of the experience we had had then, showed that they were very much in excess of what we could do the work for, and therefore we rejected all the bids.

Senator GORMAN. Of course, you know, I am not asking these questions for the purpose of having you criticise Mr. Wallace or anybody else. What we are after is the facts. The press, which is always

correct, when you went to the Isthmus credited you, I think, with the statement that you would "make the dirt fly" at once; and that things had been moving rather slowly up to that time.

Mr. SHONTS. That I made that statement?

Senator GORMAN. That is the general impression; whether it is correct or not I can not say; and that after you got there and looked over the field you reversed the policy of making the dirt fly. I wanted to get at the reasons; that is all. I want the facts.

Mr. SHONTS. The reason was as I stated this morning. In the first place, I never made the statement at any time that I was going to make the dirt fly. The nearest I came to it was in a public speech, when I said that I hoped we would be ready by July 1 next to have our plant, that we have already bought, installed, and ready to make the dirt fly on a comprehensive plan.

Senator GORMAN. This was in a later speech.

Mr. SHONTS. That was the only speech in which I went on record in regard to making the dirt fly. But when we got there we found the conditions as I stated them to you this morning, and we did discuss whether it was the wisest thing to go ahead trying to make a showing in moving dirt and do this other thing at the same time, or whether it was wisest just to take the bull by the horns and shut down on such work, except such as was necessary to have the Culebra cut in proper shape for the installment of the plant, which was simply incidental, as you stated a while ago, to taking up and carrying through as earnestly and as rapidly as we could all of the preparatory work. We finally decided that that was the wisest thing to do and proceeded to do it.

Senator GORMAN. As a matter of fact, you have spoken of the extraordinary conditions that existed on the Isthmus when you reached there as to this feeding of the people within the Zone; that no preparation had been made for it, or practically none.

Mr. SHONTS. Not for the common laborer.

Senator GORMAN. I mean for the common laborer. Had not Mr. Wallace invited Mr. Markel to look over the ground before you came, with a view to supplying better commissary arrangements?

Mr. SHONTS. Yes, sir; the first time I ever saw Mr. Markel I found him on the Isthmus.

Senator GORMAN. So that Mr. Wallace was looking in that direction, in the same line that you have since gone, except in a different way?

Mr. SHONTS. I think so.

Senator GORMAN. He had practically, then, the same view that you had?

Mr. SHONTS. That is what I meant by my remark that he would have encountered the same conditions that we found, and would probably have taken the same action that we took.

Senator GORMAN. Precisely. How was it as to the sanitary arrangements; was that work going on?

Mr. SHONTS. That was going on very well.

Senator GORMAN. Has the system or general view been changed as to the preparations that have been made to make the region sanitary?

Mr. SHONTS. I do not think so, with possibly one exception. I think they have broadened out a little bit in regard to not only the

prevention of disease by fumigation and isolation, etc., but also by a thorough cleaning up.

Senator GORMAN. Was the same physician in charge of it then?

Mr. SHONTS. Yes.

Senator GORMAN. A very competent man?

Mr. SHONTS. I think so; very. I think the results show that.

Senator MORGAN. If I may interrupt for a moment, I would like to ask another question.

Senator GORMAN. Certainly.

Senator MORGAN. I want to find out something more about that railroad. I can not get it straight in my head. It has been stated here to the committee by Mr. Stevens that in the present situation of the cuts through Culebra and Emperador Heights he could lay railroad tracks and put engines upon them and haul the soil, or haul any material from Miraflores through to Gatun, back and forth. That led me to the conjecture whether or not it was possible, now, by running the track of the Panama Railroad on one of the benches that have been left there in the cuttings to carry the road right through that cut, say, at the present time, and whether you had not already dug down to an elevation where a railroad track could be constructed with gradients that would be sufficiently low to accommodate the traffic—all of it. Here is a little diagram that I have drawn, in which I try to represent what I suppose to be the benches that are left as you come down on either side of the elevation here, I will say at Culebra and Emperador—any of these heights. There is the first bench above the present diggings, for instance, and there is the second one above the present diggings there [indicating on diagram]. Would it be practicable to run a railroad upon one of these benches, either one side or the other, through from Miraflores to, say, Gamboa?

Mr. SHONTS. If you will permit me, the old road did run through there, and they built a cut-off back of it. That is the present main line of the Panama Railroad [indicating on diagram]. Does that answer your question? They ran it back there so that they could cut down these benches freely for the installation of shovels and the carrying on of the work.

Senator MORGAN. Is that necessary?

Mr. SHONTS. Is it necessary to have that road back—

Senator MORGAN. Is it necessary to have these benches there now?

Mr. SHONTS. Yes, sir.

Senator MORGAN. Free for use in transporting material to dump?

Mr. SHONTS. In order to properly excavate. Those benches will all be used for the excavations.

Senator MORGAN. They will all be used for that purpose?

Mr. SHONTS. Yes, sir.

Senator MORGAN. And if the Panama Railroad proper—the main road—was located through that cut it might interfere with the digging of the dirt?

Mr. SHONTS. Yes, sir.

Senator MORGAN. Would it necessarily?

Mr. SHONTS. I think it would, Senator; and that was the opinion of the engineer when they built this cut-off back here. [Indicating on diagram.]

Senator MORGAN. It strikes me as being very important that the line of that Panama Railroad should be located, as far as possible,

correct, when you went to the Isthmus the statement that you would "make things had been moving rather."

Mr. SHONTS. That I may.

Senator GORMAN

correct or not I care over the field you wanted to get at.

Mr. SHONTS first place, I want to make the when I said our plant, the dirt?

Senator

Mr.

in reference to the disc a side or d

and crossing the line of that railroad and from Gamboa and carry it right through

if we do that we always stand the by the construction trains. This establishment of the tracks on each

will come down to its own common yard, the material from the steam shovels smaller engines than are used on the

to get the service for the Panama Railroad

piece of road, through this cut as well as

It is all here that is a very busy piece of road, which is a very busy piece of road, where this track, leading from the

over the cut-off that they have built right around the cut. And I do not believe that any of these tracks will come down to its own common yard, the material from the steam shovels smaller engines than are used on the

finished levels, and where this track, leading from the various levels, comes to the main line of the Panama Railroad farther on, in order to take care of both the commercial business and

the dirt from the cut, that is where we double track.

Senator MORGAN. My suggestion is, instead of doubling the track right along the route that goes behind this cut-off that you spoke of, side by side, parallel to it all the way through, that one of these

tracks should pass through the cut.

Mr. SHONTS. Senator, you do not quite understand. We are not double tracking back of this cut-off.

Senator MORGAN. Oh!

Mr. SHONTS. No; that track is already built. We are double tracking from the end. For instance, if it comes around there [indicating on diagram] we go on and then come around this way [indicating on diagram]. Then these tracks come down here from these various levels, and we double the track down here [indicating on diagram] and not back of the cut. Is that plain?

Senator MORGAN. Yes. The real difficulty in my mind is, and the suggestion of the minority of the Commission is, that we shall put in a great dam at Gatun and make a lake there that practically runs to Miraflores and runs up the Chagres River above to Alhajuela.

Mr. SHONTS. There are two lakes; one runs up the side of the cut and the other runs from Miraflores down—

Senator MORGAN. I understand that. The great lake, though, that they propose to construct there, with the dam at Gatun, runs back up the Chagres River to Alhajuela, and forms a lake up there which runs through Trinidad and through Obispo and through all the affluents of the Chagres and the smaller streams that finally concentrate in the Chagres River; and that lake would be at some places 5 miles, 10 miles, and even 15 miles wide.

Mr. SHONTS. Yes.

Senator MORGAN. So that that lake would run out the entire road-bed of the present Panama road, and you would have to take it up the right bank of the Chagres River on the edges of the hills?

Mr. SHONTS. Yes, sir.

Senator MORGAN. And you would have to cross that lake with a bridge in some place unless you carried it through this cut?

Mr. SHONTS. Now I understand what you are trying to get at, Senator—that in the construction of that type of canal we might have to do that.

Senator MORGAN. That is the point.

Mr. SHONTS. We only got that minority report day before yesterday, and we, or at least I, have not had time to study it in connection with the Panama Railroad and the question—

The CHAIRMAN. Had we not better proceed with the other matters—

Senator MORGAN. The same result with a less amount of bridging would be arrived at if you built a sea-level canal. You would have to cross it. Whatever railroad is there after the canal is completed is obliged to pass up the right bank of the Chagres River and through that cut. You can not put it anywhere else without crossing the canal with a railroad bridge, which is an impossible thing to conceive of. The final location of the Panama Railroad, if it is to be left at all after the canal is built, whether it is a sea-level or a lock canal, is to be on the right bank of the Chagres River, and from Gamboa or that neighborhood right through that cut from Paraiso to Miraflores, or wherever you make the point there, I do not care where it is. If it is practicable in the reconstruction of that road in shifting the tracks at the present time, it is a very important consideration that it should go through that gap, and if it should cross through the gap on a bench that is somewhat too high to produce the proper gradients that you should lower it to the next bench and make your preparation in digging with a view to that particular thing.

Mr. SHONTS. That is all the more reason why we should have the type of canal settled as soon as possible.

Senator MORGAN. I understand that. We must settle it; but it makes no difference, in my judgment, as I think I see the situation, whether it is a lock canal or a sea-level canal in respect to the route that the Panama Railroad is obliged ultimately and finally to take. Therefore, we ought to examine that subject carefully to see whether the Panama Railroad can not soon—not immediately, but soon—be transferred permanently to the right bank of the Chagres River, with as straight line as you can go to reach through this cut.

Senator HOPKINS. That is secondary to what we are after now.

Senator MORGAN. That is the point that has been troubling me—what we would do with the railroad. I want to add one more suggestion to it. It seems to me that this railroad has a very much more important connection with the interests of the United States as a road to haul dumping spoils out to the proper place than it has as a commercial road for the interchange of commerce between the different parts of the earth while we are digging that canal. I am afraid we are trying to do too much to carry on commercial relations across the Isthmus there expeditiously and comfortably while we are trying to use the same railroad for the purpose of digging this canal.

Mr. SHONTS. I can only say in reply to that, Mr. Senator, that we settled the policy when we were there the first time, in July, that when it came to a question of favoring either interest we would favor the construction of the canal; and we did follow that out, and were criticised for it for a time; but now, with our increased facilities there is no reason, if we can get rid of the freight at the west end or

along the line of the canal, instead of making a detour and crossing this Chagres River three or four times; and it seems to me to be entirely practicable if you could bring up the line of that railroad on the right bank of the Chagres River to Gamboa and from Gamboa to the great cut at Emperador and Culebra and carry it right through that cut down to Miraflores.

Mr. SHONTS. Well, Mr. Senator, if we do that we always stand the chance of having our trains held up by the construction trains. This cut is all to be given up to the establishment of the tracks on each one of these levels.

Each one of these tracks will come down to its own common yard, and the engines that will haul the material from the steam shovels down to this common yard are smaller engines than are used on the main line of the railroad in point of construction. And I do not believe that it would be possible to get the service for the Panama Railroad, which is a very busy piece of road, through this cut as well as over the cut-off that they have built right around the cut. It is all finished and in good shape, and where this track, leading from the various levels, comes to the main line of the Panama Railroad farther on, in order to take care of both the commercial business and the dirt from the cut, that is where we double track.

Senator MORGAN. My suggestion is, instead of doubling the track right along on the route that goes behind this cut-off that you spoke of, side by side, parallel to it all the way through, that one of these tracks should pass through the cut.

Mr. SHONTS. Senator, you do not quite understand. We are not double tracking back of this cut-off.

Senator MORGAN. Oh!

Mr. SHONTS. No; that track is already built. We are double tracking from the end. For instance, if it comes around there [indicating on diagram] we go on and then come around this way [indicating on diagram]. Then these tracks come down here from these various levels, and we double the track down here [indicating on diagram] and not back of the cut. Is that plain?

Senator MORGAN. Yes. The real difficulty in my mind is, and the suggestion of the minority of the Commission is, that we shall put in a great dam at Gatun and make a lake there that practically runs to Miraflores and runs up the Chagres River above to Alhajuela.

Mr. SHONTS. There are two lakes; one runs up the side of the cut and the other runs from Miraflores down—

Senator MORGAN. I understand that. The great lake, though, that they propose to construct there, with the dam at Gatun, runs back up the Chagres River to Alhajuela, and forms a lake up there which runs through Trinidad and through Obispo and through all the affluents of the Chagres and the smaller streams that finally concentrate in the Chagres River; and that lake would be at some places 5 miles, 10 miles, and even 15 miles wide.

Mr. SHONTS. Yes.

Senator MORGAN. So that that lake would run out the entire road-bed of the present Panama road, and you would have to take it up the right bank of the Chagres River on the edges of the hills?

Mr. SHONTS. Yes, sir.

Senator MORGAN. And you would have to cross that lake with a bridge in some place unless you carried it through this cut?

Mr. SHONTS. Now I understand what you are trying to get at, Senator—that in the construction of that type of canal we might have to do that.

Senator MORGAN. That is the point.

Mr. SHONTS. We only got that minority report day before yesterday, and we, or at least I, have not had time to study it in connection with the Panama Railroad and the question—

The CHAIRMAN. Had we not better proceed with the other matters—

Senator MORGAN. The same result with a less amount of bridging would be arrived at if you built a sea-level canal. You would have to cross it. Whatever railroad is there after the canal is completed is obliged to pass up the right bank of the Chagres River and through that cut. You can not put it anywhere else without crossing the canal with a railroad bridge, which is an impossible thing to conceive of. The final location of the Panama Railroad, if it is to be left at all after the canal is built, whether it is a sea-level or a lock canal, is to be on the right bank of the Chagres River, and from Gamboa or that neighborhood right through that cut from Paraiso to Miraflores, or wherever you make the point there, I do not care where it is. If it is practicable in the reconstruction of that road in shifting the tracks at the present time, it is a very important consideration that it should go through that gap, and if it should cross through the gap on a bench that is somewhat too high to produce the proper gradients that you should lower it to the next bench and make your preparation in digging with a view to that particular thing.

Mr. SHONTS. That is all the more reason why we should have the type of canal settled as soon as possible.

Senator MORGAN. I understand that. We must settle it; but it makes no difference, in my judgment, as I think I see the situation, whether it is a lock canal or a sea-level canal in respect to the route that the Panama Railroad is obliged ultimately and finally to take. Therefore, we ought to examine that subject carefully to see whether the Panama Railroad can not soon—not immediately, but soon—be transferred permanently to the right bank of the Chagres River, with as straight line as you can go to reach through this cut.

Senator HOPKINS. That is secondary to what we are after now.

Senator MORGAN. That is the point that has been troubling me—what we would do with the railroad. I want to add one more suggestion to it. It seems to me that this railroad has a very much more important connection with the interests of the United States as a road to haul dumping spoils out to the proper place than it has as a commercial road for the interchange of commerce between the different parts of the earth while we are digging that canal. I am afraid we are trying to do too much to carry on commercial relations across the Isthmus there expeditiously and comfortably while we are trying to use the same railroad for the purpose of digging this canal.

Mr. SHONTS. I can only say in reply to that, Mr. Senator, that we settled the policy when we were there the first time, in July, that when it came to a question of favoring either interest we would favor the construction of the canal; and we did follow that out, and were criticised for it for a time; but now, with our increased facilities there is no reason, if we can get rid of the freight at the west end or



south end promptly, why we can not do both, without any trouble, in my judgment.

Senator MORGAN. In regard to criticism, Mr. Shonts, I think the President, or the ruling spirit in that establishment, and nearly all of those below him, ought immediately to toughen themselves, so that they will not regard any criticism that any mortal man makes, unless it comes from a source of superior information.

Mr. SHONTS. I can only say in reply to that, Senator, that I do not know what the criticisms are, unless some kind friend cuts them out and sends them to me. We are too busy working to read what is said about us. We are too busy thinking about what is for the best interests of the canal.

Senator GORMAN. Returning to the point that I was asking you about, as to this excavation, here is what the Secretary of War says in his last annual report, page 81:

"When Mr. Wallace left, the pay roll contained the names of 8,000 persons. Since Mr. Stevens has taken hold, in three months this has been increased from 8,000 to 13,000. Under Mr. Wallace it was thought wise by the old Commission and by Mr. Wallace himself to make experiments in the cost of excavating earth from the cut. He did this with some new excavating machinery, but principally with the old transportation machinery, and he reached some results, the value of which is in dispute.

"He feels confident that he has shown by his calculations that the cost per cubic yard in excavating the Culebra cut may be reduced below half of that fixed by the Commission, and this is used as an argument in favor of changing the type of canal from a lock to a sea-level canal. Upward of half a million of dollars was spent by Mr. Wallace and the former Commission in these excavations. Mr. Shonts and Mr. Stevens have not deemed it wise to continue them, because they think the conditions under which the experiments were carried on are not like those which will prevail in the actual excavations, for the reason that the disposition of the spoil must be made at a very much longer distance and with a very much greater expense. I do not stop to pass upon the difference in judgment between the engineers."

That is what I referred to. I wanted a fuller statement from you than I have understood you to make of why that was a mistaken policy in spending \$500,000 at that time by Mr. Wallace.

Mr. SHONTS. I will say this: I think we would have been more fortunate if when we purchased that canal we had not received with it any old equipment or any old engines.

Senator MORGAN. You say we would have been more fortunate?

Mr. SHONTS. Yes, sir. I think if Mr. Wallace had not found any old cars or old engines there he would not have undertaken to remove any material, because he would have had to wait until the new equipment was purchased and manufactured in the United States, and in the meantime he would have given all his attention to repairing houses and doing sanitary work. He purchased, and very wisely, these large excavating steam shovels, some of them with a capacity of 5 cubic yards per bucket. The old French dumps that are there will only hold about 6 and 6½ cubic yards; they have rigid trucks, and they were operated over these tracks constructed of these old

French rails that I have described, and pulled by these little French engines.

The result was that in loading one of these little cars with a big steam shovel sometimes one bucket would hit the car in the center and would pretty nearly fill the car, and if it did not hit it in the center the dirt would drop off to the sides, so that you would have to make two lifts of the 5-yard bucket in order to fill a 6-yard car, wasting on the side. Twenty to twenty-two of these cars when loaded made a train for one of these small engines, or about 130 to 140 yards per train. The results from equipment of that kind are, as the Secretary said, necessarily much different from the results that would be obtained if they had larger and more modern equipment.

On the other hand, Mr. Wallace did this work in the dry season and with a short haul, so that when he moved what he did move for 43 cents a yard he had all the conditions favorable. But with the same plant, the same cars, the same engines, and the same character of haul, a little later on, when the wet season came on and the track troubles commenced, ran the cost up, as I say, to \$1.53 a cubic yard. I presume reports of this were made to the Secretary, and it was on that account that he has made his remarks.

Senator GORMAN. Yes.

Mr. SHONTS. I can not say more than I said a little while ago, that I think it would have been better if we had never undertaken to do any work originally until all the preparatory work had been well under way. At the same time I say, as I said before, that hindsight is better than foresight—

Senator MORGAN. It would have been better if we had had no French railroad trains, or cars, or rails?

Mr. SHONTS. I think we would have been better off without either the French cars or their French engines.

Senator GORMAN. Very good.

Senator MORGAN. We got them cheap—at only about \$20,000,000.

Senator GORMAN. I assume, from those statements, that it was a mistake, and that there may have been a loss of money from that experiment, under the conditions you have described. How long were you on the Isthmus on this first visit?

Mr. SHONTS. I was there two weeks.

Senator GORMAN. During the two weeks' stay there, and with the information you received from those who had been there longer, are you under the impression that this mistaken attempt to excavate delayed the sanitation or the construction of buildings or the paraphernalia for the road which was necessary?

Mr. SHONTS. The sanitary work was going on, I think, very well indeed, and I think that the repairs to buildings was going on as rapidly as the material was arriving; so that I do not believe that that work was delaying either the sanitary work or the construction of buildings very materially.

Senator GORMAN. Or the equipment of the road?

Mr. SHONTS. Or the equipment of the road. The orders had been placed, and the equipment had to be manufactured.

Senator GORMAN. As I understood you a moment ago, you account for the delay by the fact that the purchasing agency was not equipped to secure the material promptly up to the time when you took hold?

Mr. SHONTS. I have never gone back to see just when the orders were placed, but when I got here there was a great accumulation of orders, and the purchasing department was not sufficiently organized to promptly take care of it; but they were doing the very best they could, and hurrying things out as fast as they could.

Senator GORMAN. But there was delay in getting the material?

Mr. SHONTS. Yes, sir; there was delay in getting the material to the Isthmus.

Senator GORMAN. It has been improved because of your improved organization, as I understand?

Mr. SHONTS. It has been improved not only on that account, but because some of the material—lumber, for instance—began to arrive when we were on the Isthmus. That was fortunate, and we got the benefit of that, you understand.

Senator GORMAN. Yes; you had the benefit of it in making your arrangements?

Mr. SHONTS. In carrying forward our work; yes.

Senator GORMAN. So that, then, you had no very great embarrassment growing out of the previous conditions in going on with your new plan, if I may so term it, or in developing your plan? Nothing that the old Commission or the old engineer did seriously delayed you?

Mr. SHONTS. No.

Senator GORMAN. In making your preparations?

Mr. SHONTS. No, sir; a great deal of what they did we got the benefit of.

Senator GORMAN. I see.

Mr. SHONTS. Some of the material began to come in just when we got there, and it helped us very materially.

Senator GORMAN. Yes; I notice that statement that you increased the number of laborers in three months from 8,000 to 13,000.

Mr. SHONTS. We did. We began to build up the force very rapidly. We were short of laborers. For instance, the next day after I got there a complaint was made that we did not have laborers to unload some of the ships that were in the harbor with this lumber that we needed so badly to repair these houses.

Senator GORMAN. I see.

Mr. SHONTS. And we stopped the work on the foundation of Governor Magoon's house, and took 125 men who were working there right over and put them at work unloading the ships.

Senator GORMAN. I see. Then you made special preparations, in addition to what Mr. Wallace had done, to secure laborers from the islands or elsewhere?

Mr. SHONTS. Yes. We sent to other places.

Senator GORMAN. Was there a department specially organized for that?

Mr. SHONTS. Mr. Wallace had a department of labor and quarters. He did not call it that, though. I believe he called it a quartermaster's department, which was more in the nature of an army name. We named it as a branch of labor and quarters, so that the man that Mr. Stevens put in that branch not only has charge of the securing of the laborers, but of the quartering of the laborers.

Senator GORMAN. Had you any difficulty in securing all the labor you wanted, in numbers?

Mr. SHONTS. Not of the class we got; no, sir. We have not had yet.

Senator GORMAN. Of the class you have?

Mr. SHONTS. No, sir.

Senator GORMAN. You have had all that you wanted?

Mr. SHONTS. Yes, sir; we get them very freely.

Senator GORMAN. And principally from Jamaica and Martinique?

Mr. SHONTS. We have no agent to-day in Jamaica. We have agents in Martinique and Barbados and other places. The Jamaicans are coming there voluntarily.

Senator GORMAN. How did the demand originate that you should bring women there?

Mr. SHONTS. Some of the better class of laborers that we have got would only come on the promise that when quarters were ready their wives and families could come with them; and our agent at Martinique said that he could get a very much better class of help if we would make that promise. It was as a result of that that the women that did come came.

Senator GORMAN. Had that been the custom under the French? Did they bring women there?

Mr. SHONTS. I understand so.

Senator GORMAN. That they had them?

Mr. SHONTS. I understand so.

Senator GORMAN. You are not positive about it?

Mr. SHONTS. No, sir; I do not know about that; but I am told so.

Senator GORMAN. You imported these women—brought them in and paid their way in?

Mr. SHONTS. Yes, sir. Mr. Stevens, acting on his own authority (which I would be very glad to approve of now; but I did not know it at the time) had made these promises and authorized his agent to bring these women in; and nearly all of them are employed as domestics and various kinds of help on the Isthmus.

Senator GORMAN. Nearly all of them are employed by the Government?

Mr. SHONTS. They are employed on the Isthmus in the families of various people there, as domestics in the hotels, and—

Senator GORMAN. How do you recoup or get back the fare of \$7?

Mr. SHONTS. We do not get it back.

Senator GORMAN. That was a gratuity?

Mr. SHONTS. That was a gratuity; yes, sir.

Senator GORMAN. I notice that in your original statement and that of the Secretary of War, which was dated, I think, on December 18, this matter was brought up. It is stated that in no instance does your record show that any money had been expended on that account.

Mr. SHONTS. The voucher that I had before me at that time said "for laborers;" and I interpreted that as meaning that they were coming as laborers. And most of them are laborers. But, as a matter of fact, I learned afterwards from Mr. Stevens that they were the wives or members of the families of people that were there and that he had authorized the agent to make these promises in order to get a better class of help; and he says they are a better class of help coming from Martinique. In order to get them there he had made these promises, and he carried them out.

Senator GORMAN. I understood you to say and claim that you had inaugurated, through the very intelligent gentleman who has been before the committee, a system of bookkeeping that was as perfect as it could be made. Do I understand, now, that the statement made by your auditor here, whatever his name is, would not show a transaction of this sort, but would class it as common labor?

Mr. SHONTS. I think I sent a copy of the voucher to the Secretary of War with my letter. As I recollect the voucher, that voucher reads "laborers." I would like to have you verify it. That is my recollection of it.

Senator GORMAN. Yes; but what I want to know is whether, with your system of accounts, that is likely to occur—that an item of that sort should be put down as "laborers?"

Mr. SHONTS. The man that made the voucher, of course, would take the data from the bill that he received, and they received the bill, as I remember, from the steamship company, or whoever made up the bill; and I suppose it was O. K.'ed by our agent. The auditor would, of course, make up the voucher in accordance with the language of the bill O. K.'ed by the agent.

Senator GORMAN. Yes; so that it does not look as if it was as perfect a system as I had hoped, from the statement that was made by your auditor. It appears from this addendum to the President's message of January 8, 1906, which contains the statement of the Secretary of War and yourself and others, that it was not until January 10 (your statement being made on the 18th that no amount of money was paid by the Commissioners on this account)—not until the 10th of January, 1906, at 11 a. m., did the Secretary communicate to the President that that was an error, and that his information came not through your accounts, but from one John W. Settoon, who made the contract for these women.

Mr. SHONTS. Mr. Settoon was the agent who made the contract, and he was in this country. He wrote me from New Orleans that he had made this arrangement, and that he would be very glad to come and explain just why he did it and how it was done. When he got here he told me that he had done it under orders from Mr. Smith, who was agent of laborers and quarters. Then I asked Mr. Stevens, who was here, and he explained the conditions under which it had all arisen, and that he had authorized it. As soon as I ascertained the facts I immediately notified the Secretary, and we corrected our statements that we had theretofore made.

Senator GORMAN. So I understand; and Mr. Stevens's statement was very straightforward to the same point. But what I am getting at now is your system of accounts.

Mr. SHONTS. I do not see anything in that against the system of accounts. I am only inferring that the bill that was presented was O. K.'ed by the agent, and this agent still says that they came there as laborers, and that they were to accept employment as laborers. That was his explanation of it.

Senator GORMAN. Yes.

Mr. SHONTS. And from that I believe there is nothing wrong, as, if they were regular laborers, employed, we would pay their fare. But, from a different point of view, it was in excess of any authority that we, as a Commission, had given, although I can understand from the explanation that Mr. Stevens made that it was necessary,

to get a better class of help, and that we would have given the authority if it had been presented to us.

Senator GORMAN. I understand.

Mr. SHONTS. So far as the accounting is concerned, that would naturally come up on a bill O. K.'ed by the agent.

Senator GORMAN. You know, of course, what we are getting at, and that is, whatever defect there is in your system, with a view of preventing such defects in the future. We are all interested in that.

Mr. SHONTS. I understand.

Senator GORMAN. Do I understand you to say, with this new system of accounting and bookkeeping which was described to us yesterday by the auditor, that on the Isthmus Mr. Stevens or any other employee of this Canal Commission has a right to enter into contracts without your approval?

Mr. SHONTS. Under the original distribution of authority contained in the President's order there were three departments, and under that order the head of each department had a right to fix the salaries (which would probably include the wages) and employ the men, subject to the approval of the executive committee or of the full Commission. I said to Mr. Stevens, when I employed him, and he made it a condition, that he would have to report to but one source of authority; and when I was down there I said: "While you are not a member of the Commission nor a member of the executive committee, so far as our relations are concerned, I intend to treat you as such, and I give you, so far as I can give it as chairman, all the authority that you would have if you were a member of the Commission and of the executive committee. You may go ahead and exercise your judgment in the securing of men and tools to do this work expeditiously and economically." And acting under that general, broad authority he made this arrangement; but no other man has got the right, except Governor Magoon, who would have a right in his department—

Senator GORMAN. In his department?

Mr. SHONTS. Yes, sir; the same as Mr. Stevens did in his department.

Senator GORMAN. Is Mr. Stevens authorized by that statement to furnish tools, to—

Mr. SHONTS. He makes his requisitions for all supplies, and those requisitions come up through the store department to me.

Senator GORMAN. Yes.

Mr. SHONTS. Or to the general purchasing officer. The more important things come to me direct, in a letter, with recommendations and reasons all set out. The general run of things come up, the general requisitions, to the purchasing officer direct, and he brings them to me in cases where there is anything out of the ordinary monthly run of things. I then pass on Mr. Stevens's recommendations, and I will say I am largely governed by them, because, if he is a proper man for the place, he knows what tools he needs to do the work with.

Senator GORMAN. We will get down to the question of tools in a moment. Then, I understand you to say that you gave him full plenary power to make any contracts he saw proper, without reference to you and the board, for labor, either male or female?

Mr. SHONTS. The word "female" was never mentioned.

Senator GORMAN. I understand; but is it broad enough to cover that? As I understand your statement this morning, is that his power?

Mr. SHONTS. Yes, sir; that is his power.

Senator GORMAN. And to fix the price, without reference to the Commission?

Mr. SHONTS. He fixes the price, but it is all subject to review by the Commission; yes, sir.

Senator GORMAN. How can it be subject to review after he has paid the steamship company the passage money?

Mr. SHONTS. We can stop it, of course.

Senator GORMAN. How?

Mr. SHONTS. We can not get back anything he has paid. Whatever act a man does under these authorities, up to the time the power is revoked or the action rescinded, stands. But we could stop, from that time on, the continuation of anything that we thought was unwise. We have not, however, found it necessary to do that in any case.

Senator GORMAN. Yes; I understand that; but in the transaction itself you have no possibility of reviewing it, do you?

Mr. SHONTS. No.

Senator GORMAN. Do you think that was a wise arrangement that he made, looking at it now, with all the light you have had on the subject since?

Mr. SHONTS. If it resulted, as he says it did, in getting a better class of labor to come, and if it resulted in creating a feeling of contentment so that that class of labor will stay, I do approve of it.

Senator GORMAN. What is the fact about that?

Mr. SHONTS. He says that both those things are true. I have not been there since, and I believe he knows.

Senator GORMAN. You have not been there since?

Mr. SHONTS. I have not been there since.

Senator GORMAN. You rely alone upon his report?

Mr. SHONTS. I rely very largely on Mr. Stevens's statements.

Senator GORMAN. As to his requisitions for machinery and tools, I understand that he is the only man on the Isthmus, except Governor Magoon, that has a right to make requisitions for paraphernalia of any sort.

Mr. SHONTS. That is right.

Senator GORMAN. That includes the railroad as well as the canal?

Mr. SHONTS. Yes.

Senator GORMAN. And embraces what class of tools?

Mr. SHONTS. All classes that he uses in his department.

Senator GORMAN. Is there any limit as to the amount?

Mr. SHONTS. You understand that there is no limit as to what he can ask for?

Senator GORMAN. Yes.

Mr. SHONTS. Then we review here what he asks for.

Senator GORMAN. Will you not now describe to me that process? I would like to know just how it is done.

Mr. SHONTS. Requisitions for all supplies emanate from the man wanting to use the supplies. He sends those requisitions to the gen-

eral storekeeper, I will call him, of the division of material and supplies. If he has the materials in stock he furnishes them.

Senator GORMAN. That is on the Isthmus?

Mr. SHONTS. That is on the Isthmus. That is what we are talking about, is it not, Senator?

Senator GORMAN. Yes; go ahead.

Mr. SHONTS. If the general storekeeper has them in stock, he furnishes them. If he has not them in stock, in any of the stores on the Isthmus, he makes a requisition on the general purchasing officer. This is the ordinary course of business.

Senator GORMAN. That is right.

Mr. SHONTS. The general storekeeper here has a file that shows him about what is on the Isthmus, in every storehouse. He has the results right before him. If the requisition calls for anything out of the ordinary, he brings it right to me and says: "This is something unusual." Then we go into it. If there is any doubt about the necessity for it, we cable, so as not to delay the matter. If it is in regard to the purchase of engines, or cars, or steam shovels, or cranes, or apparatus for the hoisting plant, or anything of that kind that is a big proposition, Mr. Stevens writes me a letter setting forth the conditions and giving his views as to the proper thing to do, and if I approve of it then I give it to the general purchasing officer, who prepares the specifications, and we ask for bids. If I do not approve of it, I cable Mr. Stevens and say, "You ask for so-and-so. In view of such-and-such conditions, should it not be so-and-so?" And we thrash the thing out, and whatever the result is we take the action indicated before.

Senator GORMAN. What is the maximum amount that you fix that goes through in the routine of your purchasing agent's duties here and is not submitted to you? Is it as high as \$5,000, \$10,000, or any other given amount? Have you any rule about it?

Mr. SHONTS. We have no rule about it.

Senator GORMAN. Then you leave it to the judgment of the purchasing officer here as to whether he submits the requisition to you or not. Is that it?

Mr. SHONTS. Anything out of the ordinary routine of business is submitted to me.

Senator GORMAN. What do you mean by "the ordinary routine?" That is a rather technical term, you know.

Mr. SHONTS. Anything except such supplies as we are sending down there continually from month to month—small supplies just to keep the stock on hand going; anything outside of that.

Senator GORMAN. And does that apply to lumber, for instance?

Mr. SHONTS. All lumber questions we take up together.

Senator GORMAN. And cement and all that class of material?

Mr. SHONTS. Cement requisitions he does not bring to me, because we keep a certain amount of cement going there all the time. If he should get an order for any unusual quantity of cement he would bring it to me.

Senator GORMAN. I see. Well, Mr. Shonts, you say he would bring it to you. Then what? Do you act on it alone?

Mr. SHONTS. I act on it alone.



Senator GORMAN. Where do you find the authority for that?

Mr. SHONTS. I find the authority in the order of the President putting the purchase in my hands, subject to the approval of the executive committee. If you will look at that order you will find that the financing and making purchases of supplies are put directly in my hands.

Senator GORMAN. Where do you find that order?

Mr. SHONTS. That is the order of the President.

Senator GORMAN. I say where do you find it?

Mr. SHONTS. It is the order of April 3, I think.

Senator GORMAN. Have you that order?

Mr. SHONTS. I think I have a copy of it here.

Senator GORMAN. I wish you would read that branch of it to me.

Mr. SHONTS. Then everything that I do is submitted to the executive committee or to the full Commission.

Senator GORMAN. Yes; after it is all over?

Mr. SHONTS. No, no; before that. I take them up with the engineering committee if they are matters of engineering, for instance.

Senator GORMAN. I thought you had fallen into the habit of railroad men in that regard.

Mr. SHONTS. Oh, I have gotten to be very prudent, I hope.

Senator GORMAN. I trust so, too.

Mr. SHONTS (reading): "The head of the first department shall be the chairman of the Commission, who shall have direct and immediate charge of the fiscal affairs of the Commission, the purchase and delivery of all materials and supplies."

Senator HOPKINS. That has been already introduced in evidence, I think.

Senator GORMAN. Will you read that again, please?

Mr. SHONTS (reading): "The head of the first department shall be the chairman of the Commission, who shall have direct and immediate charge of the fiscal affairs of the Commission, the purchase and delivery of all materials and supplies."

Senator GORMAN. Yes; "shall have charge."

Mr. SHONTS. Yes.

Senator GORMAN. I understand that you are to be in charge of that duty under that order; but to act on it——

Senator HOPKINS. That was printed in our hearings the other day.

Senator GORMAN. Yes; can you turn your hand to it?

(The portion of the hearings referred to was handed by the chairman to Senator Gorman.)

Mr. SHONTS. If the requisition is, for instance, for a dredge, I immediately refer the specifications to the engineering committee. That committee consists of four engineers, who have had between them a good deal to do with all forms of machinery of that kind.

Senator GORMAN. Yes.

Mr. SHONTS. I have them examine the specifications; I have them give me their report as to whether the specifications can be improved on or not. If they approve the specifications, then I pass the requisition over to the purchasing officer to get bids, and the award is made on those bids. If the matter is a matter of cars or engines, I sometimes cable to Governor Magoon, who is the other member of the executive committee, and say, "I have a requisition for so-and-so;

have you any objection?" And if he says "No," I go ahead. But there is no delay, no time wasted; that is the point I am trying to make. When I say I do these things, there is no delay in time. We are not hampered in that respect by the so-called "red-tape" that I hear so much about.

Senator GORMAN. Is your executive committee in constant session here at your headquarters with you?

Mr. SHONTS. Well, when Governor Magoon is on the Isthmus, he is one member and I am the other; there is no third member.

Senator GORMAN. There is no third member?

Mr. SHONTS. No. Mr. Wallace was the third member. That place has not been filled. There has never been a Commissioner appointed since to succeed him.

Senator GORMAN. But you have Mr. Stevens. Why has he not been put upon that executive committee?

Mr. SHONTS. That is a matter for the Executive Department, Senator.

Senator GORMAN. Has it not been brought to the attention of the appointing power?

Mr. SHONTS. I think they knew that Mr. Wallace resigned, and I suppose they have been looking for a suitable man to fill his place.

Senator GORMAN. It embarrasses you somewhat not to have a full committee, I take it?

Mr. SHONTS. Well, the cable is in working order, and I can communicate, as I do, with Governor Magoon, who is the other member.

Senator GORMAN. Yes; I know you can communicate by cable, but you can not get a man's judgment by a statement you make by cable?

Mr. SHONTS. I will state that all of us aim to keep in very close touch with the general situation, and I think Governor Magoon is very well posted in regard to every important matter on the Isthmus, as well as here. There is a copy of all files that he has in our office, and vice versa, so that we are in constant touch with the situation.

Senator MORGAN. How much does Mr. Bishop know about all of these facts, practically?

Mr. SHONTS. Mr. Bishop has only come with us recently, and I do not know how much he has taken on as yet.

Senator MORGAN. He has never been there?

Mr. SHONTS. No; he has never been there.

Senator MORGAN. He is not an engineer?

Mr. SHONTS. I do not think he is.

Senator GORMAN. Who is that?

Senator MORGAN. Mr. Bishop. I was trying to find out how much he knew about it.

Senator HOPKINS. I think, Mr. Chairman, that we ought to keep to the line of examination here. That is a subject that is foreign to it.

Senator MORGAN. Well, I am in the habit of getting out of line once in a while when I am attracted to a subject very forcibly.

Senator GORMAN. So that, Mr. Shonts, as I understand it, you have brought to this work your habits as a railroad man and as a man accustomed to managing work, and you practically go on and act upon your own judgment in these matters as they come up? That is the fact, is it not?

Mr. SHONTS. No; not except they are approved of by my associates. I am very careful to get their opinions in every case of any great importance.

Senator GORMAN. Yes.

Mr. SHONTS. In a great many matters that I think are clearly within the purview of my authority I go right ahead and act, of course.

Senator GORMAN. I see; and then you submit the matter to the approval of the board afterwards?

Mr. SHONTS. Every act of the executive committee is submitted to the full Commission.

Senator GORMAN. Yes.

Mr. SHONTS. On the other hand, I will say this: That very frequently of late the four members of the Commission have been here in the office, and I have reversed the order of things; and rather than cable the governor, I have called the Commission together, as we can do in a few minutes, and we pass on all these things as a Commission.

Senator GORMAN. Yes; that is in conformity to the original act; the Commission say, "Do thus and so." But, for instance, up to the end of the last fiscal year the Commission had purchased 61 steam shovels?

Mr. SHONTS. Yes, sir.

Senator GORMAN. They are expensive?

Mr. SHONTS. They cost about \$11,000 each, I should say, on an average.

Senator GORMAN. But since you have taken charge have you purchased any of them, or were all of those 61 purchased before that time?

Mr. SHONTS. I think there were 19 purchased when I came in. Do you remember, Mr. Ross?

Mr. Ross. There were 43 purchased since you came. That left about 18.

Mr. SHONTS. My recollection was that there were 19 purchased when I came. Perhaps it was 18.

Senator GORMAN. So that forty-odd of them have been purchased since you came in?

Mr. SHONTS. Yes, sir.

Senator GORMAN. When requisitions came for them, what did you do—advertise?

Mr. SHONTS. We advertised in every instance.

Senator GORMAN. How much notice did you give?

Mr. SHONTS. About thirty days.

Senator GORMAN. In the various cities?

Mr. SHONTS. In the various cities of the United States; yes, sir.

Senator GORMAN. Sending circulars to the manufacturers as well?

Mr. SHONTS. We not only advertise, but we send circulars to a great many people that are prominent in their respective lines.

Senator GORMAN. Yes; but you furnish them all alike with specifications?

Mr. SHONTS. Yes.

Senator GORMAN. Sending them to them by mail if they want them, or would they be compelled to come to your office in Washington?

Mr. SHONTS. We send them by mail.

Senator GORMAN. When the bids are received a day is fixed and an hour is fixed for opening them?

Mr. SHONTS. Yes, sir.

Senator GORMAN. And they are opened in public?

Mr. SHONTS. They are opened in public.

Senator GORMAN. By whom?

Mr. SHONTS. By the general purchasing officer.

Senator GORMAN. In the presence of what officers of the Commission?

Mr. SHONTS. Not necessarily in the presence of any officers of the Commission. He opens them in his own office, publicly. Then all those bids are tabulated, and those tabulated reports come to me. If it is a matter of technical questions, engineering questions, the members of the engineering committee are called in. We get all their views if it is a matter of that kind.

Senator GORMAN. What do you mean by that? To see whether they comply with your specifications?

Mr. SHONTS. No. For instance, it is impossible, in a lot of those things, to get absolute compliance with every detail of our specifications. There are always some variations.

Senator GORMAN. In bids?

Mr. SHONTS. In the details of the machine, for instance, that is bid upon. Then we get in our engineers, if it is an engineering matter. They are experts, or supposed to be, the best talent we can get. We have sometimes gone outside to get independent expert opinions where we were in doubt as to what to do.

Senator GORMAN. Yes.

Mr. SHONTS. And we have those bids canvassed in view of the minor changes. Then, in awarding, we take into consideration three things—cost, quality, and time of delivery. The latter is very frequently a very important item.

Senator GORMAN. Yes.

Mr. SHONTS. We go over these bids with these experts; and if, for instance, one bid is lower than the others, but in its minor details presents a feature of weakness that in the opinion of our engineers does not justify the difference in cost between that and the next higher bid that more nearly complies with what we want, on the recommendation of that committee we will take the next higher bid, because we are really getting a better value for the money invested. That is the process we follow.

Senator GORMAN. That I can understand. If the bidder departs from your specifications, you have that power to do that; but in a case where three bidders or two bidders bid and comply exactly with your specifications, what do you do?

Mr. SHONTS. The lowest bidder gets the contract. The lowest bidder always gets it unless the question of time comes in.

Senator GORMAN. That is the only element?

Mr. SHONTS. That is the only element, and that is very seldom. Now we are pretty well caught up; but there was a time when delivery meant a lot to us, when we were going through the sweat of urgency for material there; the pressure was on us, and the question of time did cut a figure.

Senator GORMAN. Who determines that question, technically and as to the point of time and cost—you yourself, or the board?

Mr. SHONTS. No, no. We have members of our board who are experts in these things, and I am governed largely by their opinions. I finally make the announcement, as the chairman.

Senator GORMAN. I understand; but it is not alone upon your personal judgment?

Mr. SHONTS. It is on the judgment of the experts in our board; and sometimes, as I say, we have gone outside.

Senator GORMAN. I see.

Mr. SHONTS. Where our men were not quite positive, we have sometimes gone outside and gotten independent expert testimony.

Senator GORMAN. I take it you have had complaints, not alone in the case of steam shovels, but of all the other machinery—rapid unloaders, engines, and so on—from bidders, that they have been discriminated against? I take it that that naturally has occurred with you?

Mr. SHONTS. We have had complaints; yes, sir.

Senator GORMAN. You have had some?

Mr. SHONTS. Oh, yes.

Senator GORMAN. On steam shovels?

Mr. SHONTS. I do not remember of any on steam shovels at all.

Mr. ROSS. If you will excuse me, Mr. Shonts, we got bids from every steam-shovel concern in the United States that could make the delivery we wanted.

Mr. SHONTS. I have never seen a complaint in regard to steam shovels, Mr. Senator.

Senator GORMAN. You have in the matter of the engines, have you not?

Mr. SHONTS. No.

Senator GORMAN. No?

Mr. SHONTS. No; no complaints have reached me.

Senator GORMAN. That the lowest bids were excluded?

Mr. SHONTS. None that complied with our specifications; it never has been so.

Senator GORMAN. It has not?

Mr. SHONTS. No, sir.

Senator GORMAN. But you gave a perfect opportunity, as I understand, by advertising and sending circulars, to every body who wanted to bid to do so?

Mr. SHONTS. To bid on our specifications; yes.

Senator GORMAN. Yes—on your specifications?

Mr. SHONTS. Yes.

Senator GORMAN. For engines and all the balance of the material?

Mr. SHONTS. Yes, sir; everything of any moment at all.

Senator GORMAN. And you say that you have escaped complaints from bidders who did not succeed?

Mr. SHONTS. On steam shovels and on engines—I thought you specified those two things.

Senator GORMAN. Well, on any of them?

Mr. SHONTS. Oh, yes, indeed; we have had complaints; yes.

Senator GORMAN. You have had, but on steam shovels and engines you have not?

Mr. SHONTS. No complaints in regard to our awards of either steam shovels or locomotives have come to me; but we have had complaints from certain awards; certainly.

Senator GORMAN. I see. But you regard your system there as perfect so far as you can make it?

Mr. SHONTS. Well, I do not suppose that any system is perfect, Senator.

Senator GORMAN. I say, as perfect as you can make it.

Mr. SHONTS. But it is our best judgment. It is the judgment of our Commission and of Mr. Stevens, who is not a member of the Commission, and, in a few cases, of outside men, in addition.

Senator GORMAN. What road were you connected with last?

Mr. SHONTS. The Clover Leaf.

Senator GORMAN. You contracted there for engines and cars?

Mr. SHONTS. Yes, sir.

Senator GORMAN. And you pursued the same system there of contracting?

Mr. SHONTS. We did not advertise; that was the only difference. We got competitive bids by letter. We prepared our specifications in the same way.

Senator GORMAN. You selected your own bidders by letter in that way?

Mr. SHONTS. It was competitive bidding, but it was not advertised.

Senator GORMAN. I see.

Mr. SHONTS. But so far as the preparation of specifications was concerned it was exactly as we do here.

Senator GORMAN. Yes. Now, Mr. Shonts, I take it that the greater number of these engines were for the railroad, were they not?

Mr. SHONTS. No, sir. The 24 that Mr. Wallace bought were for the railroad. The 120 we have bought since are for the Commission.

Senator GORMAN. They are all for the Commission?

Mr. SHONTS. Yes, sir; 100 of them were procured with the idea, as I explained a few moments ago to Senator Morgan, of working in the cut on those various levels. They are smaller than the other 20. As to the 20, the idea was to use them from the yards at the junctions of the main track with bigger trains in hauling the loads to destination.

Senator GORMAN. I see. You spoke a moment ago of a contract or an understanding in writing between the Commission and the railroad as to the proper division of these expenditures.

Mr. SHONTS. A copy of which we will send you.

Senator GORMAN. A copy of which you will send us. Was that agreement, or understanding, or whatever it is, made by the full board of Commissioners?

Mr. SHONTS. Oh, yes.

Senator GORMAN. It was?

Mr. SHONTS. Oh, yes.

Senator GORMAN. It was entered into formally by action of the full board?

Mr. SHONTS. Oh, yes. I want to say that every act that has been done since I have been with this Commission has been approved by the full board.

Senator GORMAN. Yes; but I am not talking about the approval afterwards. I have been in too many corporations not to know what that means.

Mr. SHONTS. Yes; I know, too. I have sat in them. I want to say this, however: This is not formal. There is not a member of the Board that hesitates to express his convictions at any time; and I want to say that there has never been an act that any of us has taken between our full sittings that has been questioned by any member of the Board when we were in full sitting after hearing the reasons that caused us to take the action we did. I can not tell you offhand what members of the Commission or how many of them were present at any one time, but I do know that every act has been thoroughly discussed—not pro forma, but thoroughly—and has been approved by the full Commission—that has been done either by myself, as the head of any of these departments, or by Magoon and I as an executive committee since we have been with the Commission.

This contract between the Panama Railroad and the Isthmian Canal Commission, a copy of which has been handed to me, and which I will be glad to send to you, was approved by the full Board.

Senator GORMAN. What is the date of that, Mr. Shonts? Have you the date there?

Mr. SHONTS. November 8, 1905. [Handing paper to Senator Gorman.]

Senator MORGAN. May I ask a question here?

Senator GORMAN. Certainly, sir.

Senator MORGAN. Have any of the acts of the Commission been overruled by the President?

Mr. SHONTS. No, sir.

Senator MORGAN. Never?

Mr. SHONTS. No, sir; and no act of the Commission has ever been disapproved by the President.

Senator MORGAN. Yes; that is what I mean.

Mr. SHONTS. No, sir. Two acts of the directors of the Panama Railroad were not approved of by the Secretary of War, but no act of the Commission has ever been disapproved of by either the Secretary of War or the President.

Senator MORGAN. Or the President?

Mr. SHONTS. No, sir.

Senator GORMAN (referring to paper handed to him by Mr. Shonts). Mr. Shonts, as I understand you, you will furnish us a copy of this. The original is in your office?

Mr. BENSON. You can have that. That is a certified copy.

(The paper above referred to was directed to be incorporated in the record at this point, and the same is as follows:)

Memorandum of agreement made and entered into this 8th day of November, 1905, by and between the United States of America, acting by and through the Isthmian Canal Commission, parties of the first part, and the Panama Railroad Company, a corporation created by and existing under the laws of the State of New York, party of the second part.

Whereas the main line of the railroad of the party of the second part as now existing has only a single track, which is adequate for the purposes and business of the party of the second part; and

Whereas the necessities of the work of constructing the Panama Canal, in which the parties of the first part are engaged, require that

additional track shall be constructed on the said main line of railway, so that it shall have a double track, in whole or in part, and the parties of the first part have requested said party of the second part to cause such additional track to be constructed; and

Whereas the party of the second part is willing to construct such additional track upon the agreement that the cost thereof be borne and defrayed by the parties of the first part, and not deeming the same necessary for its own purposes is not willing to construct the same at its own expense; and

Whereas the parties of the first part recognize that it is proper that the cost of such construction, being incurred for their benefit, should be borne by them and are willing to advance to the party of the second part the money necessary therefor upon the terms and conditions hereinafter set forth:

Now, therefore, this indenture witnesseth, that the parties hereto, for and in consideration of the premises and of the covenants of the respective parties hereto hereinafter expressed, have covenanted and agreed, and by these presents do covenant and agree, to and with each other as follows:

First. The party of the second part shall proceed with all convenient speed to construct additional track along such part of its main line from the city of Colon to the city of Panama, in the Republic of Panama, as the party of the first part shall from time to time request, so as to convert said line into a double-track railroad to that extent, and shall construct such additional line so as to be in all respects equal to the existing main line of railway of the party of the second part between said points.

Second. The cost of constructing such additional track shall be borne and defrayed by said parties of the first part, as follows:

The cost to the party of the second part of such portions of said second track as have been heretofore so constructed shall be paid to said party of the second part by the parties of the first part, acting as aforesaid, upon presentation to them of statements by the party of the second part, showing such cost and due verification thereof by the parties of the first part. For the cost of all such additional track hereafter constructed monthly statements shall be rendered by the party of the second part to said Isthmian Canal Commission at the end of each month, showing such expenditures and the amount of said statements, and within thirty days after the same shall have been so rendered the amount thereof shall be paid by the parties of the first part to the party of the second part.

Third. Any additional or other expenses occasioned by or through the building of such additional track for sidings, switches, stations, storehouses, terminal facilities, and the like, shall be borne and defrayed by the party of the second part, and the parties of the first part shall not be in any way chargeable therewith.

Fourth. The party of the second part shall, at its own cost and expense, and during the term of this agreement, maintain such additional track in good order and condition, equal to the track now existing; and at the end of said term any material, rails, and other supplies paid for by the parties of the first part under this agreement, and then in the possession of the party of the second part, shall become and be the property of the said parties of the first part.



Fifth. During the term of this agreement the parties of the first part shall be at liberty to use any lines of track, sidings, or switches of the party of the second part upon the Isthmus of Panama, connecting with or used in connection with any lines of track, sidings, or switches belonging to the parties of the first part upon said Isthmus; and the party of the second part shall likewise be at liberty to use any line of track, sidings, or switches on the Isthmus of Panama belonging to the party of the second part, connecting with or used in connection with any line of track, sidings, or switches of the party of the second part upon said Isthmus without any charge or payment by either of the parties hereto against the other or on account of any such use. Provided that no such use by either party of the tracks, sidings, or switches of the other shall be such as to prevent the reasonable use of the same by the party to whom they belong; and such use shall be subject at all times to the rules and regulations of the party to whom such tracks, sidings, and switches respectively belong concerning the operations of the same.

Sixth. This agreement shall continue and the rights hereunder acquired shall be enjoyed by the parties hereto for the term of fifteen years from the 8th day of November, 1905, and shall extend to and be obligatory upon the successors and assigns of the respective parties hereto.

In witness whereof the parties of the first part have caused these presents to be signed by the chairman of said Isthmian Canal Commission, attested by its secretary, and the seal of said Commission to be hereto affixed; and the party of the second part has caused these presents to be signed by the assistant to its president and attested by its assistant secretary, and its corporate seal to be hereto affixed, the day and year first herein above written.

ISTHMIAN CANAL COMMISSION,  
By T. P. SHONTS, *Chairman*. [SEAL.]

Attest:

JOSEPH BUCKLIN BISHOP, *Secretary*.

PANAMA RAILROAD COMPANY,  
By E. A. DRAKE,  
*Assistant to the President*.

Attest:

T. H. ROSSBOTTOM, *Assistant Secretary*.

A true copy.

W. LEON PEPPERMAN, *Assistant Secretary*.

(For general auditor.)

Senator GORMAN. What I want to get in this connection is this, in the first place: As I understand it, Mr. Stevens is the manager of your road?

Mr. SHONTS. Yes, sir.

Senator GORMAN. The superintendent of the road?

Mr. SHONTS. He is the general manager of the Panama Railroad.

Senator GORMAN. Was this agreement the result of a report or a recommendation by him, in the first place?

Mr. SHONTS. I think not; I think it was my own idea of a fair basis.

Senator GORMAN. I see.

Mr. SHONTS. I am not sure about that, Mr. Senator, but we discuss these questions informally. We are together a great deal, and we discuss them wherever we are and at any hour of the day. We do not sit in session. And if we thrash out a general conclusion, and all agree on it, we put it into effect, knowing the opinions of every person, and formally act on it at the first opportunity.

Senator GORMAN. So that no matter whether you did it or some one else did it, it was after a consultation with him?

Mr. SHONTS. Oh, yes; all of those matters are the result of discussion, either personally or by letter, and are yet the consensus of opinion of all of us.

Senator GORMAN. I see. This paper is signed by you in type as the chairman of the board, and by a Mr. E. A. Drake, "assistant to the president." Who is he?

Mr. SHONTS. He is the assistant to the president of the Panama Railroad.

Senator GORMAN. Oh, yes; but you are the president of the Panama Railroad?

Mr. SHONTS. Yes; I am the president of the Panama Railroad.

Senator GORMAN. So, in fact, this is an agreement made between—

Mr. SHONTS. Between ourselves and the board of directors of the Panama Railroad, which is largely composed of the members of the Commission.

Senator GORMAN. Yes; but it is drawn up by the chairman of the Commission and the assistant to the president of the road?

Mr. SHONTS. And the assistant to the president of the Panama Railroad.

Senator GORMAN. Now, I will thank you to furnish us with a copy of the minutes of the Commission relating to this agreement, the date on which it was approved, and who was present.

Mr. SHONTS. All right; we will be very glad to make a memorandum of that and send that to you.

Senator GORMAN. And whether its terms were put in operation before the approval or began from the date of the approval by the Commission, if you will kindly do that.

Mr. SHONTS. All right. The agreement did not become operative until it was approved by the Commission.

*Agreement between the Isthmian Canal Commission and the Panama Railroad Company for the construction of a second main track.*

At the seventeenth meeting of the executive committee of the Isthmian Canal Commission, held at Panama, on August 2, 1905 (present, Commissioners Shonts and Magoon), the following was adopted:

Whereas the necessities for the work of constructing the isthmian canal, and especially the work of excavating the Culebra cut, will require that the Panama Railroad shall be double tracked in whole or in part; and

Whereas the necessities of the commercial traffic over said railroad would be provided for by the present trackage in the absence of the work required by the Isthmian Canal Commission in the construction of the canal: Therefore, be it

*Resolved*, That the expense of constructing the second main track of the Panama Railroad shall be charged to and defrayed by the Isthmian Canal Commission from the funds available for the construction of the canal, the expense incurred in providing new buildings for station houses, storehouses, etc., and in building sidings, switches, and terminal facilities to be borne by the Panama Railroad Company. Under this arrangement the railroad company and the Isthmian Canal Commission will use the tracks of the Panama Railroad Company interchangeably without charge therefor against either; all the expense of maintenance, however, to be borne by the Panama Railroad Company, and the expense of the work done by the Panama Railroad Company up to the present time toward the construction of a second main track will be assumed and borne by the Isthmian Canal Commission from the appropriation for the construction of the canal.

For the expenditures made for work hereafter to be done by the railroad company in constructing the second main track monthly bills will be rendered by the railroad company against the Commission, which will be paid by the Commission from the appropriation for the construction of the canal.

That the foregoing be submitted to the general counsel of the Panama Railroad Company to prepare and submit the necessary agreement.

I hereby certify that the above is a true copy.

JOSEPH BUCKLIN BISHOP,  
*Secretary Isthmian Canal Commission.*

---

At the one hundredth meeting of the Isthmian Canal Commission, held at Washington, D. C., October 30, 1905, present Chairman Shonts, Commissioners Endicott, Hains, and Ernst, the following action was taken:

The chairman presented a draft of contract between the Commission, acting for the United States, and the Panama Railroad Company, which had been prepared by Mr. William Nelson Cromwell, as counsel for the Panama Railroad, pursuant to previous resolutions of the Commission, and relating to the double tracking of the Panama Railroad for the use, especially, of the Commission in advancing the work of canal construction.

The contract was read and considered, and upon motion of Commissioner Ernst, seconded by Commissioner Endicott, it was—

*Resolved*, That the Commission, acting for the United States, enter into contract with the Panama Railroad Company in the following form, to wit:

Memorandum of agreement made and entered into this — day of November, 1905, by and between the United States of America, acting by and through the Isthmian Canal Commission, parties of the first part, and the Panama Railroad Company, a corporation created by and existing under the laws of the State of New York, party of the second part.

Whereas the main line of the railroad of the party of the second part as now existing has only a single track, which is adequate for the purpose and business of the party of the second part; and

Whereas the necessities of the work of constructing the Panama Canal, in which the parties of the first part are engaged, require that additional track shall be constructed on the said main line of railway, so that it shall have a double track, in whole or in part, and the parties of the first part have requested said party of the second part to cause such additional track to be constructed; and

Whereas the party of the second part is willing to construct such additional track upon the agreement that the cost thereof be borne and defrayed by the parties of the first part, and not deeming the same necessary for its own purposes is not willing to construct the same at its own expense; and

Whereas the parties of the first part recognize that it is proper that the cost of such construction, being incurred for their benefit, should be borne by them and are willing to advance to the party of the second part the money necessary therefor, upon the terms and conditions hereinafter set forth:

Now, therefore, this indenture witnesseth: That the parties hereto for and in consideration of the premises and of the covenants of the respective parties hereto hereinafter expressed have covenanted and agreed, and by these presents do covenant and agree, to and with each other as follows:

First. The party of the second part shall proceed with all convenient speed to construct additional track along such part of its main line from the city of Colon to the city of Panama, in the Republic of Panama, as the party of the first part shall, from time to time, request, so as to convert said line into a double-track railroad to that extent; and shall construct such additional line so as to be in all respects equal to the existing main line of railway of the party of the second part between said points.

Second. The cost of constructing such additional track shall be borne and defrayed by said parties of the first part as follows:

The cost to the party of the second part of such portions of said second track as have been heretofore so constructed shall be paid to said party of the second part by the parties of the first part, acting as aforesaid, upon presentation to them of statements by the party of the second part, showing such cost and due verification thereof by the parties of the first part. For the cost of all such additional track hereafter constructed monthly statements shall be rendered by the party of the second part to said Isthmian Canal Commission at the end of each month, showing such expenditures and the amount of said statements; and within thirty days after the same shall have been so rendered the amount thereof shall be paid by the parties of the first part to the party of the second part.

Third. Any additional or other expenses occasioned by or through the building of such additional track for sidings, switches, stations, storehouses, terminal facilities, and the like shall be borne and defrayed by the party of the second part, and the parties of the first part shall not be in any way chargeable therewith.

Fourth. The party of the second part shall, at its own cost and expense, and during the term of this agreement, maintain such additional track in good order and condition equal to the track now existing; and at the end of said term any material, rails, and other supplies paid for by the parties of the first part under this agreement,

and then in the possession of the party of the second part, shall become and be the property of the said parties of the first part.

Fifth. During the term of this agreement the parties of the first part shall be at liberty to use any lines of track, sidings, or switches of the party of the second part upon the Isthmus of Panama connecting with or used in connection with any lines of track, sidings, or switches belonging to the parties of the first part upon said Isthmus; and the party of the second part shall likewise be at liberty to use any line of track, sidings, or switches on the Isthmus of Panama belonging to the party of the second part connecting with or used in connection with any line of track, sidings, or switches of the party of the second part upon said Isthmus without any charge or payment by either of the parties hereto against the other for or on account of any such use: *Provided*, That no such use by either party of the tracks, sidings, or switches of the other shall be such as to prevent the reasonable use of the same by the party to whom they belong; and such use shall be subject at all times to the rules and regulations of the party to whom such tracks, sidings, and switches respectively belong concerning the operation of the same.

Sixth. This agreement shall continue and the rights hereunder acquired shall be enjoyed by the parties hereto for the term of fifteen years from the — day of November, 1905, and shall extend to and be obligatory upon the successors and assigns of the respective parties hereto.

In witness whereof the parties of the first part have caused these presents to be signed by the chairman of said Isthmian Canal Commission, attested by its secretary, and the seal of said Commission to be hereto affixed; and the party of the second part has caused these presents to be signed by the assistant to its president and attested by its assistant secretary, and its corporate seal to be hereto affixed the day and year hereinafter written.

ISTHMIAN CANAL COMMISSION,  
\_\_\_\_\_, *Chairman.*

Attest:

\_\_\_\_\_, *Secretary.*

PANAMA RAILROAD COMPANY,  
By \_\_\_\_\_,

*Assistant to the President.*

Attest:

\_\_\_\_\_, *Assistant Secretary.*

And that the same be executed in behalf of the Commission so appended, by its chairman, and attested by its secretary, and that said contract be delivered and exchanged.

I hereby certify that the above is a true copy.

JOSEPH BUCKLIN BISHOP,  
*Secretary Isthmian Canal Commission.*

Senator GORMAN. Generally, Mr. Shonts, how much have you expended on the Panama Railroad from the amount appropriated by the Commission up to this time? Have you any idea? I mean out of the moneys now appropriated.

Mr. SHONTS. How much have we expended for the Panama Railroad?

Senator GORMAN. Yes; for the Panama Railroad?

Mr. BENSON. Nothing.

Mr. SHONTS. I do not think we have spent anything.

Senator GORMAN. You have loaned them some money, have you not?

Mr. SHONTS. Yes. The accounts are kept entirely separate.

Senator GORMAN. Yes.

Mr. SHONTS. And broad lines of demarkation, as I indicated a while ago, are kept. Every improvement made to the terminus of the Panama Railroad, every item for the purchase of its new equipment, and every item for repairs of its old equipment is charged to the Panama Railroad. Take this trade right here. If there is any hardship it runs against the Panama Railroad for this reason—the Panama Railroad there gets the benefit only, as I recollect the terms, of the original cost of the second track. It not only maintains both tracks afterwards, but it pays for and maintains all the terminals that it has to build to take care of this increased business caused by the construction of the canal.

Senator GORMAN. You purchased two steamships for a little over a million dollars, did you not?

Mr. SHONTS. One million three hundred thousand dollars.

Senator GORMAN. Yes. The Canal Commission did that?

Mr. SHONTS. The Canal Commission did that and leased those two steamships to the Panama Railroad upon a rental which calls for 4 per cent on the total cost to the Commission, which is double what Government bonds usually carry, and also 4 per cent per annum to cover the depreciation of the steamships, the railroad company to keep the steamships in as good condition, less the wear and tear that is inevitable, as when they received them, and to keep the steamships insured to their full value for the benefit of the Commission.

Senator GORMAN. It is the judgment of the Commission, then, that the purchase of the steamers was a necessity for canal purposes?

Mr. SHONTS. It was necessary to provide tonnage to carry our material to the Isthmus.

Senator GORMAN. For the construction of the canal?

Mr. SHONTS. For the construction of the canal.

Senator GORMAN. And the poverty of the railroad prevented them from purchasing them?

Mr. SHONTS. They did not have the money to do it with.

Senator GORMAN. Have you made any other advances in the same way, or by leases?

Mr. SHONTS. No; we have made a loan.

Senator GORMAN. Yes.

Mr. SHONTS. The Commission owed the Panama Railroad on December 1, \$610,000 for services rendered and for moneys advanced by the Panama Railroad for the Commission when it had acted as an agent in the purchase of some things for the Commission—some steel rails, etc. In order to enable the Panama Railroad to meet its obligations the Commission has advanced on account of the vouchers that it owes, but which it had not yet gotten in proper shape for payment, some \$400,000, the last I heard—that is, of this \$610,000. That is all we have done.

Senator GORMAN. But you recoup in all those cases by services rendered by the road for the canal?

Mr. SHONTS. The vouchers that are coming back, as fast as they are checked up on the Isthmus and vouchered here, will take up that advance of \$400,000. It is the regular charge.

Senator GORMAN. And there was no other way to accomplish the result for the canal, as I understand it?

Mr. SHONTS. There was no other way, because the Secretary ruled that it was not proper to sell the bonds that were in the Panama Railroad's treasury.

Senator GORMAN. Yes. Well, we will get to that in some other way.

Mr. SHONTS. Yes.

Senator MORGAN. May I ask one question here?

Senator GORMAN. Certainly.

Senator MORGAN. Who makes the contracts between the railroad company and the Commission?

Mr. SHONTS. The board of directors of each concern.

Senator MORGAN. Who is the agent that negotiates between them?

Mr. SHONTS. I usually take the matter up with Mr. Drake, who is the active operator of the Panama Railroad.

Senator MORGAN. You take it up with Mr. Drake?

Mr. SHONTS. Yes; and get his traffic manager's views, the officers' views up there, and I represent the views of the Commission. We try to be fair.

Senator MORGAN. Who represents Mr. Drake on the Isthmus?

Mr. SHONTS. Mr. Drake is the assistant to the president here. Mr. Stevens is general manager of the railroad on the Isthmus.

Senator MORGAN. Yes; he represents Mr. Drake?

Mr. SHONTS. So far as he acts under instructions.

Senator MORGAN. Who are the directors of the Panama Railroad now?

Mr. SHONTS. The directors consist of the Commission—

Senator MORGAN. Exclusively?

Mr. SHONTS. No; plus Mr. Drake and Mr. Cromwell, Mr. De Obaldia, Colonel Edwards, and—let me see, that is all I think of just now. I will send you a complete list of the directors.

Senator MORGAN. How many Commissioners are there on this board?

Mr. SHONTS. There are supposed to be seven. Mr. Wallace, you know, went out and left a vacancy.

Senator MORGAN. Yes; six after he left?

Mr. SHONTS. Six after he left.

Senator MORGAN. How many outsiders are there?

Mr. SHONTS. On the Commission?

Senator MORGAN. In the directory.

Mr. SHONTS. I think there were thirteen in the directory. We have a report here somewhere that ought to show that. Mr. Stevens was made a director at the last meeting of the board of directors, last week, to fill the vacancy caused by the resignation of Mr. Wallace, and was also made vice-president. When I hired him as chief engineer of the Commission I appointed him general manager of the Panama Railroad, leaving the vacancy until we had a meeting of the board of directors of the Panama Railroad. That meeting was held last week, and Mr. Stevens was elected as a director, and then

the directors elected him as vice-president; so to-day Mr. Stevens is vice-president.

Senator MORGAN. Mr. Stevens is vice-president of the railroad?

Mr. SHONTS. He is vice-president and general manager of the Panama Railroad.

Senator MORGAN. Does that exclude Mr. Drake from the management?

Mr. SHONTS. Mr. Drake is assistant to the president. No; he is the active man in charge of the operations of the railroad here——

Senator MORGAN. Has he still a voice in the management?

Mr. SHONTS. Oh, yes; oh, yes.

Senator MORGAN. Now, as I understand, there are to-day, at this time, seven persons connected with the canal who are directors of the railroad?

Mr. SHONTS. That is it.

Senator MORGAN. And how many outsiders?

Mr. SHONTS (addressing Mr. Benson). Have you the list there?

Senator KITTREDGE. Here it is.

Mr. BENSON (reading). "T. P. Shonts, Charles E. Magoon, Mordecai T. Endicott, Peter C. Hains, B. M. Harrod, Oswald H. Ernst, William Nelson Cromwell"——

Mr. SHONTS. Mr. Cromwell is one.

Mr. BENSON (continuing). "J. D. deObaldia."

Mr. SHONTS. DeObaldia is two.

Mr. BENSON (reading). "William Barclay Parsons."

Mr. SHONTS. Mr. Parsons is three.

Mr. BENSON (reading). "Clarence R. Edwards."

Mr. SHONTS. Mr. Edwards is four.

Mr. BENSON (reading): "Roger L. Farnham."

Mr. SHONTS. Five.

Mr. BENSON (reading): "E. A. Drake."

Mr. SHONTS. That is six.

Mr. BENSON (reading): "John F. Wallace, resigned."

Mr. SHONTS. Seven; that makes the thirteen.

Senator MORGAN. Who is Roger L. Farnham?

Mr. SHONTS. He is a man who has had more or less to do with the Panama Railroad for a good while; I think he is connected in some way with Mr. Cromwell.

Senator MORGAN. A sort of a "sleeping partner?" Is that what you understand?

Mr. SHONTS. I have never caught him asleep.

Senator MORGAN. He does not go to sleep?

Mr. SHONTS. He is very wide-awake.

Senator MORGAN. Mr. Cromwell is too, is he not?

Mr. SHONTS. Yes; very wide-awake.

Senator MORGAN. So there is not much sleeping done by that firm?

Senator GORMAN. Mr. Shonts, coming back, now, to this canal——

Senator MORGAN. I want a little further information on this point. What salaries do these directors get?

Mr. SHONTS. None.

Senator MORGAN. What compensation?

Mr. SHONTS. None.

Senator MORGAN. They get no pay for attendance?



Mr. SHONTS. No; not unless they go from here up there, and then they get there expenses.

Senator MORGAN. What do those outsiders get?

Mr. SHONTS. Nothing.

Senator MORGAN. They do it entirely for glory, I suppose. Would not that be a good rule by which to measure the salaries of gentlemen who are connected with this canal work and who have the great and beautiful opportunities of making themselves renowned forever? Should they not also make fair reductions upon their great salaries in order to emulate the examples of these self-sacrificing railroad directors?

Mr. SHONTS. I think, in view of the high testimonials that are always being given to them from the press and the public, that that ought to be sufficient glory. [Laughter.]

Senator MORGAN. But they do not find themselves entirely satisfied with it. Now, just one more word, please. Have Mr. Farnham and Mr. Cromwell an equal voice on that board with yourself and these other gentlemen?

Mr. SHONTS. Yes, sir.

Senator MORGAN. So that the destinies and the management and the control of this railroad company are in the hands of these outsiders; and Mr. Cromwell and Mr. Farnham are two of them, and they have an equal voice with any of the Commissioners in the management of the railroad company?

Mr. SHONTS. The directors of the Panama Railroad Company (if you will permit me to answer in this way) are simply the agents of the Government; and we act under the general, broad policies that are announced to us by the Secretary of War, acting for the President, the same as we do in matters of canal work.

Senator MORGAN. You speak now of the directors who are also Commissioners; you are not speaking of these outsiders? They are not agents of the Government in any sense, as I understand it?

Mr. SHONTS. I think that the views of the Secretary of War are that the board of directors are really agents for the Government. That would include all of them.

Senator MORGAN. They represent the Government in their transactions, of course, upon the board; but these gentlemen who comprise the board of directors and who are not Commissioners and not connected officially with the canal could not be called individually agents of the Government in any sense, could they?

Mr. SHONTS. Not individually; but in the meetings they have the same voice that any other director has. Each man has the same voice.

Senator MORGAN. Yes. Who is the attorney of this railroad company?

Mr. SHONTS. Mr. Cromwell.

Senator MORGAN. What does he get?

Mr. SHONTS. His firm, Sullivan & Cromwell, I understand, have been the attorneys of the railroad for a great many years. Their compensation is \$6,000 a year.

Senator MORGAN. Is that fixed by the Commissioners?

Mr. SHONTS. No; we found it so, and it has never been changed.

Senator MORGAN. Has this railroad company been under any ne-

cessity for the employment of counsel since the Commission was made part of the board?

Mr. SHONTS. There are frequently questions coming up that are referred to them for legal advice and for information. There is a question that I submitted last week, in regard to the titles to the lots in Colon in the name of the railroad company, and I received a very long opinion this morning, which I did not have time to read before I came here. I only mention that as an illustration of the important questions that arise from time to time, and which I refer to them for legal opinions.

Senator MORGAN. The title to lots in Colon, you say? Could not the Department of Justice here handle that question?

Mr. SHONTS. I do not know, I am sure. I do not think they have the data that the railroad has.

Senator MORGAN. If the board of directors could furnish the data, could not the Department of Justice handle it?

Mr. SHONTS. Oh, I suppose so.

Senator MORGAN. Yes; there is hardly any doubt about that, I suppose. Now, I take it from what you say and from all that I know about it—which is very little—that these gentlemen who get \$6,000 a year as a retainer do very little work of a legal character for this Panama Railroad.

Mr. SHONTS. There have been a number of questions, Senator, that we have had to refer to them, that we would have had to refer to some legal authority.

Senator MORGAN. Have any questions about the financial transactions between these three or four banks in Panama and the railroad company or the Canal Commission been referred to Mr. Cromwell?

Mr. SHONTS. There was an agreement made in which the railroad participated—that is, it got the benefit of the agreement—and Mr. Cromwell, as I recall it, assisted in the preparation of that agreement.

Senator MORGAN. And signed it as the fiscal agent of the Panama Government?

Mr. SHONTS. I think so; yes.

Senator MORGAN. Yes; he did. It is here in evidence.

Mr. SHONTS. Yes; I think so.

Senator MORGAN. In that case he would be serving two masters, would he not—serving the Panama Government and these banks on the one hand, and on the other hand serving the railroad and the canal?

Mr. SHONTS. So far as the railroad is concerned, it was not out anything on that proposition. It simply got the benefit of any arrangement that was made.

Senator MORGAN. Yes; but they had not anything to do with negotiating it?

Mr. SHONTS. No.

Senator MORGAN. That was between the Secretary of War and—

Mr. SHONTS. That was between the Secretary of War and the Panaman people.

Senator MORGAN. Secretary Taft, in executing that agreement, stated (which is in evidence here) that he had a special order of the President to make an agreement in that respect, and that in that he stood in front of the Commission. He did not consult you as to what agreement he was to make?

Mr. SHONTS. No, sir.

Senator MORGAN. The Commission is not responsible for the financial system in Panama to-day?

Mr. SHONTS. No, sir.

Senator MORGAN. Not at all?

Mr. SHONTS. No, sir.

Senator MORGAN. It is Mr. Taft and Mr. Cromwell—Taft representing the United States and Cromwell representing the Government of Panama and the banks. Do you know about how many companies Mr. Cromwell is connected with in Panama that have business relations with the Government or with the railroad?

Mr. SHONTS. I do not know of any such company in Panama.

Senator MORGAN. Do you know anything about the Panama Improvement Company?

Mr. SHONTS. I understood once, not officially, that he was a stockholder, a small stockholder, in some electric-lighting plant. That is the only thing I have ever heard his name connected with there, locally.

Senator MORGAN. That is the first time I ever heard of his being a small stockholder in anything. I supposed that if he was a stockholder he was as big as anybody about. Now, about ice plants—has he got an ice plant there, also?

Mr. SHONTS. Not that I know of.

Senator MORGAN. You do not know about that?

Mr. SHONTS. Not unless this same company—the electric-light company—has an ice plant in connection with it. I think that is probably true, Senator. I think it has an electric-light plant and an ice plant combined.

Senator MORGAN. To furnish ice to the canal and the employees and all that?

Mr. SHONTS. I do not know that they are furnishing any ice to the canal. It seems to me I remember receiving a very vigorous protest in regard to the Commission's erecting an ice plant to furnish our own people with ice.

Senator MORGAN. Who made that protest?

Mr. SHONTS. I think a gentleman by the name of Lundie.

Senator MORGAN. Is he also connected with Cromwell in this ice partnership?

Mr. SHONTS. I think he is the electrical engineer in charge of that plant.

Senator MORGAN. He has electricity and ice combined. And so Lundie is in on the electrical side, and Cromwell on the ice side?

Mr. SHONTS. I think it is one plant.

Senator MORGAN. It is one plant?

Mr. SHONTS. So I have been told.

Senator MORGAN. Now, about the banks there—has Cromwell any stock in those banks?

Mr. SHONTS. No; not that I know anything about at all. What I tell you is all that I have ever known or been told. I did not know that.

Senator MORGAN. You do not know how far he goes in the control of those banks?

Mr. SHONTS. No, sir.

Senator MORGAN. Well, he seems to be doing very well. He is not making any more out of the railroad or canal that you know of?

Mr. SHONTS. Not that I know of. Mr. Cromwell has no official position with the Commission, and his relation with the Panama Railroad is that of a member of the firm of general counsel.

Senator GORMAN. Mr. Shonts, I understood you to say that this railroad the Government purchased down there had been neglected for twenty-five years and was in bad condition?

Mr. SHONTS. Yes; its wharves and its docks and its equipment and its locomotives had not received any attention, as I was told, for that length of time. At any rate, they were in bad condition as we found them.

Senator MORGAN. What was your estimate of the cost to the Government of putting that road and equipment into good condition for transportation? Do you remember the figures of the estimate of the expenditure which was necessary to be made?

Mr. SHONTS. I have not those in my head.

Senator GORMAN. You can furnish them, can you not?

Mr. SHONTS. Yes, sir.

Senator GORMAN. I suppose it is only an estimate?

Mr. SHONTS. It is only an estimate; and I can tell you what we have expended in improving the facilities.

Senator GORMAN. Yes; if you will kindly do that.

Now, one other statement that you made was to the effect that it would be better for the Government not to have had any of the old machinery, such as dredges and steam shovels, or whatever they were, that we acquired from the old canal company; that they were useless, so far as your work is concerned.

Mr. SHONTS. I beg pardon; I said so far as the old Belgian engines and those little dump cars were concerned. We have had some use from their dredges and some use from their steam shovels.

Senator GORMAN. Yes; but not very much.

Mr. SHONTS. Not very much; no. And, Mr. Senator, we have had some use of some of those little dump cars. For instance, there was a time when we were so badly put to it for equipment, during the congestion, that Mr. Stevens tried to run a train of those cars across the Isthmus loaded with coal. He told me how many hours he took to get them over, and how many times they were off the track; but we did get the coal over to that extent. I believe we got that benefit from them.

Senator GORMAN. That was using them only in case of emergency?

Mr. SHONTS. Yes; but generally speaking, and broadly speaking, I feel that we would have been better off if we had not had them there.

Senator GORMAN. And what proportion of it do you suppose you are now putting in new equipment that you will utilize hereafter—any of it?

Mr. SHONTS. Probably none of it.

Senator GORMAN. None of it?

Mr. SHONTS. No. There were other things; there was bar iron and some material that we can use and are using.

Senator GORMAN. Amounting to what, in the aggregate?

Mr. SHONTS. Oh, not to a very large amount. We adopted this rule down there in regard to that stuff—that we would take the old iron into our accounts at 50 per cent, as I recollect it, of the cost of new iron, and that we would use any other old cast iron that we broke up and used as scrap at the cost of scrap iron, less the cost of manufacturing it into shape to use; and that if we sold any of this stuff, of course we would take it into our account at the price we got for it. That rule was adopted at one of the meetings of the Commission on the Isthmus.

Senator GORMAN. We purchased that old equipment at about \$3,000,000, I believe? That was in the estimate.

Mr. SHONTS. I was told that all of that stuff was “blown in” on the trade.

Senator GORMAN. Oh, no.

Mr. SHONTS. It was not? Well, I was not told correctly, then.

Senator MORGAN. You were exactly right about that. I have here Admiral Walker's sworn statement about it, and I want to put it in the record, to show exactly how it came in. We paid \$8,200,000 for contingencies, and this stuff was in the contingencies, and made a big part of it.

(The statement referred to is printed at the end of this day's proceedings.)

Senator GORMAN. In the contingencies?

Senator MORGAN. In the contingencies.

Senator GORMAN. Oh, yes.

Senator MORGAN. And that represents your idea of being “blown in?”

Mr. SHONTS. I was told that.

Senator MORGAN. I know; you were told that, and it is a correct description of it.

Mr. SHONTS. Yes.

Senator MORGAN. It was taken in mass and estimated.

Senator GORMAN. But whatever the result it is useless, and you propose to sell it as old scrap?

Mr. SHONTS. I can hardly say that we propose to sell it. We have not decided what is best to do with it. We have talked about it a good deal. If we should undertake to gather it together in one place it would take a lot of labor and cost to get it together to get a bid on it collectively. If we could get a bidder that would bid us anything worth while and pay transportation charges to the States, so as to let him go and pick it up and let us haul it, as a railroad proposition, down to Colon and ship it—we have not the equipment to spare to do that. So we have just let it lie, adopting the general rule I just stated to you—that if we can use any of it, the bar iron, for instance, we take it into our accounts on the basis of 50 per cent of the cost of new. And if we break up any of those cars and use them for cast iron, we take the material into our accounts at the cost of scrap iron, less the cost of preparation, etc.

(Senator Kittredge thereupon moved that the committee adjourn until Tuesday next at 10.30 a. m.)

The CHAIRMAN. Mr. Shonts, would it be convenient for you to appear here at 10.30 Tuesday morning, when you come back from New York?

Mr. SHONTS. Yes, sir. Before we adjourn, Mr. Senator Gorman, I think you asked for the correspondence between Governor Magoon and President Amador in regard to opening our commissary stores?

Senator KITTREDGE. I asked for those.

Mr. SHONTS. Oh, did you ask for them, Senator? Well, here they are, together with Secretary Taft's formal approval. I think you asked me about that.

Senator HOPKINS. Are these the original letters, or copies?

Mr. SHONTS. These are originals.

Senator HOPKINS. Why do you not furnish copies?

Mr. SHONTS. We will send you over copies.

Senator HOPKINS. Then you can keep your originals on the records.

Mr. SHONTS. We telephoned for them, and they misunderstood what we asked for over the telephone.

Senator HOPKINS. I think you had better take them back and have copies made.

(Mr. Shonts subsequently furnished the copies referred to, and the same are as follows:)

ANCON, ISTHMIAN CANAL ZONE,  
*July 28, 1905.*

MY DEAR MR. PRESIDENT: The question of supplying food to the employees and laborers engaged in the work of constructing the Isthmian Canal has heretofore been difficult and has now reached a critical stage. During the past year the population of the Isthmus has been increased from 15,000 to 20,000, and practically all are employees of the Commission and their families. The food products of the Isthmus have never been greatly in excess of the immediate demands of the inhabitants, and these products have been reduced by partial failure of crops and the fact that many agriculturists have abandoned tilling the soil and engaged in the work on the canal and public works undertaken by the Republic of Panama. The short hours of labor and the wages paid make it much easier for the common laborer to provide for his necessities by working a few days in the week on these public works than by attempting to raise a crop requiring him to work every day and all day.

The importation of food supplies from Peru and other South American countries has been largely reduced by reason of quarantine regulations rendered necessary by the presence of bubonic plague in the ports to the south of Panama. The facilities of transportation between the ports of the United States and those of the Republic are limited and overtaxed, and none of the ships plying between these ports are fitted out with cold-storage facilities; therefore it has been difficult to secure prompt delivery of nonperishable goods and impossible to secure perishable goods and food stuffs from the States.

Both the Republic and the Commission have endeavored to induce the raising of food crops and have offered free use of land to people who would engage in gardening or other agricultural pursuits, and also transportation on the railroad into Panama and Colon at a mere nominal rate for market supplies. No one has taken advantage of the offer. The attraction of good wages for working eight hours per day were greater than the continuous toil of market gardening.

The inevitable result of this condition is that the price of food prod-

ucts has arisen steadily until it is well-nigh impossible for the bulk of the laborers on the canal to supply themselves with the necessities of life. The high price of foodstuffs is likewise oppressive to the inhabitants of the Republic of Panama, who naturally object to the increased cost of living, and, I regret to observe, attribute it to the presence of the Americans on the Isthmus.

The Government of the Republic and the Isthmian Canal Commission had recourse to numerous expedients that seemed calculated to increase the food supply and to reduce the cost. The Republic reduced import duties from 15 and 20 per cent ad valorem to 10 per cent ad valorem; the Panama Railroad and steamship lines reduced freight rates from New York to Panama not less than 50 per cent; the Government of the Republic, the Isthmian Canal Commission, the government of the Zone, the Panama Railroad, and all of the banks of the Republic entered into an agreement reducing the rate of exchange, which had in times past been frequently as high as 50 per cent, to 2 per cent and less; and the Government of the Republic adopted a plan which has secured a stable currency; but all of these measures have proved insufficient to secure the maintenance of reasonable prices for food supplies.

It may be that no individual or class of individuals is to blame for this condition of things. Possibly it is the result of the working of the laws of supply and demand. Whatever the cause, the effect is that the prices of food products are excessive to a degree that borders on the prohibitive to the citizens of the Republic and the employees of the Commission.

"The convention between the United States and the Republic of Panama for the construction of the ship canal to connect the waters of the Atlantic and Pacific," signed November 18, 1903, provides (art. 13) that "The United States may import at any time into the said Zone and auxiliary lands, free of custom duties, imposts, taxes, or other charges, and without any restriction \* \* \* all provisions, medicines, clothing, supplies, and other things necessary and convenient for the officers, employees, workmen, and laborers in the service and employ of the United States and for their families." The United States is anxious to promote the trade and commerce of the Republic of Panama in all possible and legitimate ways. Pursuant to this desire, Secretary Taft, in the agreements set forth in the Executive order dated January 7, 1905, made provision that the exercise of this right should be confined temporarily to making provisions for supplying necessities to the employees brought from the Temperate Zone, being the employees on what is known as the "gold roll," and that the experiment should be tried of requiring employees secured in the Tropics to purchase their necessities from local dealers. The provision of said Executive order is as follows:

"This order contemplates the exclusion from benefits of the commissaries established and maintained by the Commission of all employees and workmen who are natives of tropical countries wherein prevail climatic conditions similar to those prevailing on the Isthmus of Panama, and who, therefore, may be presumed to be able to secure the articles of food, clothing, household goods, and furnishings of the kind and character to which they are accustomed, from the merchants of Panama, Colon, and the towns of the Canal Zone, and whose ordi-

ary needs may be supplied without recourse to the Government commissaries. Should it develop hereafter that said merchants charge prices in excess of legitimate profit, or practice other extortions, the United States, for the protection and assistance of all its employees, whether from the Tropics or Temperate Zone, will supply its commissaries with such staple articles as are required and desired by the inhabitants of tropical countries, and permit all its employees and workmen, and those of its contractors to avail themselves of the benefits and privileges afforded by said Government commissaries."

This course has been adhered to for the past seven months, with results that are far from satisfactory. The native employees and those coming to the Isthmus from Jamaica, the Barbados, and elsewhere in the Tropics have been required to secure their supplies from the local dealers. This was difficult, because at many places along the line of the canal there were no stores, and as the camps were constantly being shifted no private individual desired to establish stores. The employees sought to establish a credit with such local dealers as they could reach and were given a credit of one week. It has heretofore been impossible for the Commission to comply with the requirements of the United States Treasury in the matter of preparing pay rolls so as to make payments to the men within a period of one week after the work was performed, and it has frequently occurred that our employees were without money or credit with which to supply themselves with food. This has resulted in much dissatisfaction and frequent refusals to work. The price of food has been so high that many of the common laborers were unable to earn enough to properly feed themselves, and large numbers are now returning to Jamaica and elsewhere for that reason. Others who are unable to pay their passage have gone into the brush for the purpose of raising enough food to sustain themselves.

It is apparent that an emergency exists, and immediate steps must be taken to meet it. To do this it will be necessary to equip the ships of the Panama Railroad and Steamship Line with cold-storage facilities, and also, if possible, to induce the United Fruit Company's line to put cold-storage facilities into their ships. This will take time, and meanwhile our native employees lack food. It is therefore necessary that the Commission shall afford the native employees the privilege of patronizing the commissary until the increase of food supplies on the Isthmus shall reduce the price to what is reasonable. I am confident this will not interfere with the business of the merchants of the Republic of Panama, for the demand is so much in excess of the supply that they will still find it difficult to secure sufficient food supplies for the residents of the Isthmus who are not employees of the Commission, and they will secure a profit as large as they are now receiving, for the decrease in the demand will enable them to decrease the exorbitant prices now exacted by the producers. The Commission proposes to open subcommissaries along the line of the canal, but will, of course, refrain from establishing branches in Panama, Colon, or elsewhere outside the Zone, and will not permit nonemployees to patronize these commissaries. This course affords relief not only to the employees of the Commission, but also to all of the inhabitants of the Isthmus, for all are suffering from high prices and inadequate supply.

I hope Your Excellency appreciates the difficulty with which the Commission is contending, and I feel confident that the citizens of the



Republic, of which you have the honor to be the head, will see the necessity for the Commission's course in this matter and cheerfully acquiesce and assist therein, as it is the only course calculated to relieve a distress in which all of us participate.

Yours, sincerely,

CHARLES E. MAGOON,  
*Governor.*

His Excellency, MANUEL AMADOR GUERRERO,  
*President of the Republic, Panama.*

---

PANAMA, August 1, 1905.

Hon. CHARLES E. MAGOON,  
*Governor of the Canal Zone, Ancon.*

SIR: His Excellency the President of the Republic has taken due notice of the contents of your esteemed note of the 28th last, referring to the intended extension of the privilege of purchasing provisions from the Canal commissariat to the native employees, and to all those who come from tropical countries with a climate similar to that of Panama.

You observe that this measure has been decided upon in view of the exceptional circumstances that have caused the high price of provisions; that the measure is provisory until the increase in the production of articles of food shall bring about a reduction of prices to a reasonable standard; that the Commission merely proposes to establish branch commissariats along the line of the canal; that none will be established in Panama or Colon or at any point outside the Canal Zone, and that none but employees will be permitted to benefit by the new arrangements.

His Excellency the President, always disposed to facilitate whatever may advance the construction of the great work in which both Governments are so deeply interested, has no objection to the proposed measure, considering the circumstances that caused its adoption, being thankful that, in pursuance of Secretary Taft's executive order, the measure is but temporary and will be in force only until the merchants can supply provisions at a reasonable price.

I take advantage of the occasion to subscribe myself,

Your obedient servant,

SANTIAGO DE LA GUARDIA.

---

ISTHMIAN CANAL ZONE,  
EXECUTIVE OFFICE,

*Ancon, Isthmian Canal Zone, October 10, 1905.*

SIR: I have the honor to advise you that in the month of July, 1905, there had arisen the emergency provided for in your order of January 7, 1905, respecting the Government commissaries in the Canal Zone, to wit:

That if necessary—

“\* \* \* the United States, for the protection and assistance of all

its employees, whether from the Tropical or Temperate Zone, will supply its commissaries with such staple articles as are required and desired by the inhabitants of tropical countries, and permit all its employees and workmen and those of its contractors to avail themselves of the benefits and privileges afforded by said Government commissaries."

A conference was had between the chairman, the chief engineer, and the governor of the Zone, at which it was determined to present the matter to the authorities of the Republic of Panama for the purpose of securing their acquiescence in the plan of opening the commissaries to all our employees on both the gold and silver rolls.

I had a conference with President Amador and Secretary Guardia, and they cheerfully consented to the proposition and expressed the hope that it would result in reducing the price of foodstuffs to the inhabitants of the Republic as well as the employees of the Commission. I then addressed a letter to the President, discussing the matter and making formal presentation of our proposal. In response thereto Secretary Guardia advised me that his Government had "no objections to the proposed measure, considering the circumstances which caused its adoption."

Upon the plan being made public several merchants of the city of Panama and one or two in Colon, who had heretofore enjoyed the monopoly of selling foodstuffs, protested against the order. Mr. Ricardo Arias, speaking for these merchants, addressed a letter to me setting forth the objections to the plan. The letter was published in the local press and immediately provoked much discussion. I thought it wise to fully advise the public respecting the situation and answered Mr. Arias's letter and gave copies to the press. Every newspaper on the Isthmus supported the action of the Commission, as did also an overwhelming majority of the inhabitants. I think even a majority of the merchants sustained the action, because theretofore our employees had been required to spend so much for food that they had nothing to spend with merchants who dealt in other commodities.

In carrying out the plan we adopted every safeguard we could think of for confining the commissary privilege to our employees and affording the merchants all possible protection of the trade which is legitimately theirs. Among other things, we prohibited the sale of goods in the commissaries for cash and established a system of coupons which can be secured only from the timekeepers and in limited amounts.

The merchants finally proposed that the Commission permit these coupons to be accepted by the merchants for goods and redeemed when presented to the Panama Railroad Company. This proposal was accepted. The merchants also requested the Commission to limit the goods on sale in the commissaries to those properly classified as "necessities." The Commission accepted this in principle, but are unable as yet to state with certainty what are and what are not necessary for the comfort and welfare of our employees.

Thus the matter stands, and, so far as I can see, everyone is satisfied. Of course, the merchants heretofore enjoying privileges that were monopolies would be glad to return to previous conditions, but the general public and unbiased Panamanians are very glad that the plan has been carried out.

I transmit herewith a compilation of the correspondence and some of the many articles published in the newspapers during the discussion; also some of the letters received by me, commending the course pursued. Respectfully submitted.

CHARLES E. MAGOON, *Governor.*

A true copy.

HENRY SEYMOUR,  
*Chief Record Division.*

HON. WM. H. TAFT,  
*Secretary of War, Washington, D. C.*

---

WAR DEPARTMENT,  
*Washington, D. C., October 19, 1905.*

MY DEAR GOVERNOR: I beg to acknowledge the receipt of your letter of October 10, describing the action taken by the government of the Canal Zone with reference to commissaries. I approve the action.

Very sincerely, yours,

WM. H. TAFT.

HON. CHARLES E. MAGOON,  
*Governor of the Canal Zone, Ancon.*

A true copy.

HENRY SEYMOUR,  
*Chief Record Division.*

---

*Action of executive committee of Isthmian Canal Commission at Panama, August 2, 1905, authorizing opening of commissaries to native employees.*

Whereas the question of supplying food to the employees and laborers engaged in the work of constructing the Isthmian Canal has heretofore been difficult and has now reached a critical stage because of (1) the increase of population of the Canal Zone; (2) the reduction of the food products of the Isthmus by a partial failure of the crops and the abandoning by agriculturists of their farms in order to engage in work on the canal and on public work undertaken by the Republic of Panama; (3) the reduction of the importation of food supplies from South American countries by reason of the quarantine regulations, and (4) the limited transportation facilities between the ports of the United States and those of the Republic, all these conditions resulting in prices for food supplies excessive to a degree that borders on the prohibitive to the employees of the Commission on the Isthmus and creating an emergency to meet which immediate steps are necessary; and

Whereas all these facts have been communicated to the authorities of the Republic of Panama for their consideration; and

Whereas the President of the Republic has stated that under the circumstances described above the Republic has no objection to the action hereafter provided for: Therefore be it

*Resolved*, That the privilege of purchasing provisions from commissaries established and maintained by the Isthmian Canal Commission

and by the Panama Railroad Company in the Canal Zone shall be extended to native employees and to all those who come from tropical countries where the climate is similar to that of Panama.

*Resolved further*, That this privilege shall be continued only until the increase in the production of articles of food on the Isthmus and other conditions shall bring about a reduction of prices to a reasonable standard.

*Resolved further*, That the Commission shall establish branch commissaries along the line of the canal, but will not establish branches in Panama or in Colon or elsewhere outside of the Zone, and that none but employees of the Isthmian Canal Commission or of the Panama Railroad Company will be permitted to benefit by the extension of the privilege herein provided for.

The chairman, thereupon laid before the committee the following letters received from Mr. John F. Stevens, chief engineer of the Isthmian Canal Commission, and the same were directed to be printed as part of the record of to-day's proceedings:

ISTHMIAN CANAL AFFAIRS,  
OFFICE OF ADMINISTRATION,  
Washington, D. C., January 20, 1906.

Hon. J. H. MILLARD,  
*Chairman Senate Committee on Interoceanic Canals,*  
Washington, D. C.

SIR: I have the honor to report as below, in compliance with request of your committee, covering statement of details and cost of equipment ordered for the Panama Railroad by former Chief Engineer John F. Wallace:

500 box cars.....	\$575, 000
12 cabooses.....	12, 000
6 passenger cars.....	46, 464
24 engines.....	296, 400
2 wrecking cranes.....	24, 800
1 pile driver.....	10, 075
Total.....	964, 839

Very respectfully,

JNO. F. STEVENS, *Chief Engineer.*

ISTHMIAN CANAL AFFAIRS,  
OFFICE OF ADMINISTRATION,  
Washington, D. C., January 20, 1906.

Hon. J. H. MILLARD,  
*Chairman Senate Committee on Interoceanic Canals,*  
Washington, D. C.

SIR: Complying with request of your honorable committee as to the number of employees in the commissary department of the Panama Railroad Company and total salary list of same, I have the honor to give below this information for the month of November:

92 gold employees.....	\$4, 728. 25
45 silver employees.....	1, 078. 68
Total.....	5, 806. 93

Very respectfully,

JNO. F. STEVENS, *Chief Engineer.*

ISTHMIAN CANAL AFFAIRS,  
OFFICE OF ADMINISTRATION,  
Washington, D. C., January 22, 1906.

Hon. J. H. MILLARD,  
*Chairman Senate Committee on Interoceanic Canals,*  
Washington, D. C.

SIR: Complying with request of your honorable committee for information in regard to ports on the Pacific coast which quarantined against the port of Panama during the past season, I will say that the following ports, in the countries noted, all quarantined against Panama on account of the first case of bubonic plague in June:

Mexico: Mazatlan, San Blas, Acapulco, Salina Cruz.

Guatemala: Champerico, San Jose.

Salvador: All ports.

Honduras: Amapala.

Nicaragua: Corinto, San Juan del Sur.

Costa Rica: Punta Arenas, Port Limon.

The ports of Mexico and San Salvador did not quarantine on account of the second case of plague in August, but all the others did, including those of Guatemala, Honduras, Nicaragua, and Costa Rica.

Very respectfully,

JNO. F. STEVENS, *Chief Engineer.*

ISTHMIAN CANAL AFFAIRS,  
OFFICE OF ADMINISTRATION,  
Washington, D. C., January 22, 1906.

Hon. J. H. MILLARD,  
*Chairman Senate Committee on Interoceanic Canals,*  
Washington, D. C.

SIR: I have the honor to advise you that I have been unable to obtain a copy of the estimate prepared by former Chief Engineer John F. Wallace of the cost of changing the gauge of the Panama Railroad to standard and the necessary change in the equipment to conform to the standard gauge.

I have sent to the Isthmus for a copy of this estimate, and it will be forwarded to you at the earliest possible moment.

Very respectfully,

JNO. F. STEVENS, *Chief Engineer.*

ISTHMIAN CANAL AFFAIRS,  
OFFICE OF ADMINISTRATION,  
Washington, D. C., January 24, 1906.

SIR: In compliance with request of your honorable committee for information in regard to ports that quarantined against Panama and Colon on account of yellow fever during the past year, I have the honor to advise you as follows:

The quarantine on account of yellow fever related to passengers only. Kingston refused passengers; Port Limon and Punta Arenas,

both in Costa Rica, quarantined passengers; Martinique and Guadeloupe required passengers to be eight days from Colon. No other ports quarantined.

Very respectfully,

JNO. F. STEVENS,  
*Chief Engineer.*

Hon. J. H. MILLARD,  
*Chairman Senate Committee on  
Interoceanic Canals, Washington, D. C.*

---

ISTHMIAN CANAL AFFAIRS,  
OFFICE OF ADMINISTRATION,  
Washington, D. C., January 25, 1906.

SIR: In connection with my letter of yesterday regarding ports that quarantined against Panama during the last year on account of yellow fever, I have the honor to advise you that I am just in receipt of a cable from the Isthmus to the following effect:

The yellow-fever quarantine at southern ports of the United States during 1905 against the Isthmus was the same as preceding years. Also, the quarantine at Cuban ports was similar to that at southern ports of the United States.

Very respectfully,

JNO. F. STEVENS,  
*Chief Engineer.*

Hon. J. H. MILLARD,  
*Chairman Senate Committee on  
Interoceanic Canals, Washington, D. C.*

The committee thereupon adjourned until Tuesday, January 30, 1906, at 10.30 o'clock a. m.

---

(The following is the extract from the statement of Rear-Admiral John G. Walker, U. S. Navy, before the Senate Committee on Inter-oceanic Canals, Saturday, February 8, 1902, which Senator Morgan requested, shortly before the adjournment of the committee, to have printed as a part of this hearing. The statement of Admiral Walker, from which the extract is taken, will be found in the report of the hearings before the Senate Committee on Inter-oceanic Canals, Fifty-seventh Congress, first session, pages 484 to 487, both inclusive.)

Senator HARRIS. When was that offer made?

Admiral WALKER. It was made on the 9th of January.

Senator HARRIS. Was any definite offer ever made before that?

Admiral WALKER. No. In addition to what we estimated for specifically they turn over to us under this \$40,000,000 their hospitals on the Isthmus, which they value at a little less than a million dollars. I can not tell you the exact amount; I should have to look that up; and they turn over to us what they call their private estate. The value of the two they estimated to be \$2,600,000. They also turn over to us all their plant on the Isthmus, which they say has cost them, first and last, a very large sum, and which will probably be of considerable value in constructing the canal, although not estimated for by the Commission. Nobody can tell its value until it is put into use. It

would be necessary to have their hospitals, of course, and from their plant, the hospitals, and what they call their private estate, we would undoubtedly get property worth five or six million dollars, covering our contingent estimate.

Senator KITTREDGE. What is meant by the word "plant" in this connection.

Admiral WALKER. "Plant" means machinery—locomotives, cars, railroad tracks—all the implements for carrying on their work.

Senator KITTREDGE. Independent of the Panama Railroad Company?

Admiral WALKER. Yes; independent of the Panama Railroad Company.

Senator HARRIS. Any of this plant belong to contractors?

Admiral WALKER. No.

Senator HARRIS. It all belongs to the company?

Admiral WALKER. Yes. They have an enormous plant there, but no man can now tell what its value is.

Senator HARRIS. We all understand there has been an enormous waste of money in the accumulation of useless machinery.

Admiral WALKER. The accumulation not of useless machinery, but the accumulation of a large surplus of machinery.

Senator HARRIS. I have always understood there was a vast expenditure in the purchase of machinery which, on arrival on the ground, proved to be unfitted and unsuited for use.

Admiral WALKER. I can not say that. I rather doubt that; but, for instance, they have a large number of locomotives down there that have never been used. They are perfectly good.

They would have, of course, to be overhauled and examined before being put into use, but they are perfectly good—have never been used. They are in buildings, carefully protected by the new company. They have also a great number of excavators and many dredges in good order, but they are of a somewhat obsolete pattern.

Senator HARRIS. I supposed they were out of date.

Admiral WALKER. We have made no estimate of their value, and they are not in our \$40,000,000, except as a contingent; but they are now in the offer to sell by the French company.

The CHAIRMAN. Admiral, the contingencies on page 103 of the Report of the Isthmian Canal Commission, according to my calculation, amount to \$7,264,806. Is that correct?

Admiral WALKER. The contingencies put in on that page amount to something less than \$4,000,000.

The CHAIRMAN. On that page?

Admiral WALKER. Yes.

The CHAIRMAN. I add them on both pages. What is the whole amount of contingencies that you have allowed to the French Panama Canal Company in this \$40,000,000? What is the whole amount of contingencies?

Admiral WALKER. On page 101 we have allowed \$4,500,000, roughly speaking.

The CHAIRMAN. Four million five hundred and seventy-nine thousand and five dollars?

Admiral WALKER. Yes.

The CHAIRMAN. And on page 103?

Admiral WALKER. On page 103 we have added 10 per cent, which is about \$3,500,000. We do not make it exact. We add 10 per cent

and call the total \$40,000,000. It would be somewhat less than \$4,000,000, about \$3,700,000.

The CHAIRMAN. What is the aggregate of that sum allowed by you for contingencies?

Admiral WALKER. It would be about \$8,000,000.

Senator HARRIS. Eight million two hundred thousand dollars, is it not?

Admiral WALKER. Yes; a little over \$8,000,000.

The CHAIRMAN. How much of that contingent fund or allowance represents actual property?

Admiral WALKER. The contingent is added to the estimate to try to make the estimate a just one—to try to cover omissions, of which there must always be a great number as long as men are fallible. You can not get in every little thing, and it is the usual course pursued by engineers. This whole calculation was made by the engineers of our Commission; they went over it very carefully, discussed it and talked it over, and finally agreed upon this matter. It was then adopted by the Commission.

The CHAIRMAN. Not being an engineer, I am trying to understand it. I do not know what it means and I want to know.

Admiral WALKER. Well, perhaps you had better ask the engineers themselves. They can, perhaps, make it clearer to you than I can.

The CHAIRMAN. No; I go to the head of the Commission which made these reports to find out what has been done, of course. Now, the omissions you speak of are not the omissions of the French people, but the omissions of this Commission.

Admiral WALKER. They are errors and omissions in making up an estimate of the probable value of their work for our plan of the canal.

Senator MITCHELL. If it should turn out that your estimate was too high, then we would lose just that much money?

Admiral WALKER. That depends upon whether you think \$40,000,000 is a high offer or a low one. I think it is a low offer myself.

Senator HARRIS. In speaking of the custom of engineers, is it not a fact that the custom of engineers is to add to the percentage for contingencies in estimating the cost of a piece of work—

Senator MITCHELL. Work to be done?

Senator HARRIS (continuing). And to deduct a percentage for contingencies in estimating the value of a piece of work that has been done, or that is to be purchased?

Admiral WALKER. Engineers always add a contingent percentage in estimating work to be done, and in getting at this work we took just the same course

Senator HARRIS. In estimating the value of a piece of work for a given purpose in order to be on the safe side, we generally deduct a percentage for contingencies, if it is a piece of work that has already been done.

Admiral WALKER. Yes; but in this case we had to estimate precisely as if we were going to construct it, and we estimated in precisely the same way.

Senator HARRIS. Not precisely as if you were going to construct it, because that was work already done, and your estimate was only as to its value as relating to future work, and in that case you should deduct the percentage.



Admiral WALKER. It was not the work that was done; it was that portion of the work done that would be effective on our plan.

Senator HARRIS. Exactly, and that is where the element of doubt comes in as to whether your rule is applicable in the prosecution of the future work, as your estimate shows.

Admiral WALKER. Well, I suppose we are all liable to make mistakes.

Senator HARRIS. These contingencies are to cover that fact?

Admiral WALKER. We had some engineers on the Commission as able as there are in the United States.

Senator HARRIS. No one doubts that.

Admiral WALKER. And they have gone over this with great care, so I do not stand on my own judgment about it; but I am perfectly willing to stand on the judgment of the skilled engineers that we have.

The CHAIRMAN. As to the \$2,000,000 for maps, and 10 per cent on that, \$200,000, did you make any allowances for omissions in regard to the value of those things?

Admiral WALKER. It is difficult, in fact impossible, to tell what is the value of the maps and data that they have, which includes maps, figures, records, and everything; all the engineers' data, all the data of every kind. They valued it themselves at \$3,500,000. Our engineers valued it at \$2,000,000, thinking that was a fair estimate.

The CHAIRMAN. Is that the cost of making the maps and the surveying that they represent?

Admiral WALKER. Yes.

The CHAIRMAN. So that in buying these we pay for the surveying done by the old Panama Company and the new?

Admiral WALKER. We pay \$2,000,000 for it. It may have cost ten times that amount.

The CHAIRMAN. Have they not frequently changed their work there from one plan to another?

Admiral WALKER. They have changed their plans; yes.

The CHAIRMAN. We pay for all those changes, too.

Admiral WALKER. No; we pay for what we believe to be a low value for their property at present.

The CHAIRMAN. You got out of those papers the information upon which you acted in making your report?

Admiral WALKER. Yes; we got the information out of those papers, to a considerable extent.

The CHAIRMAN. You have it yet?

Admiral WALKER. Yes.

The CHAIRMAN. You think it reliable?

Admiral WALKER. Yes.

The CHAIRMAN. Why do we want to buy it from them at \$2,000,000?

Admiral WALKER. Ordinary fair dealing, I think, if we were buying their property from them would be to give them some price for it. We have a great deal of information from them, but we have not one-tenth or one-fiftieth part of their data, and in going to work we should want to be able to go back to the data at any point that was necessary to clear up anything.

# ISTHMIAN CANAL.

---

COMMITTEE ON INTEROCEANIC CANALS,  
UNITED STATES SENATE,  
*Washington, D. C., Tuesday, January 30, 1906.*

The committee met at 10.30 o'clock a. m.

Present: Senators Millard (chairman), Kittredge, Dryden, Hopkins, Knox, Ankeny, Morgan, Taliaferro, and Simmons.

Present, also, Theodore P. Shonts, esq., chairman of the Isthmian Canal Commission; David W. Ross, esq., general purchasing officer, Isthmian Canal Commission; and E. S. Benson, esq., auditor of the Isthmian Canal Commission.

## STATEMENT OF THEODORE P. SHONTS, ESQ.—Continued.

Senator MORGAN. I would like to examine Mr. Shonts in regard to two or three points about which I am not satisfied from reading the papers. At what time did Mr. Markel first go to the Isthmus?

Mr. SHONTS. I found him there when I went in July. I do not know when he went down, but I think he had been there two or three weeks before that.

Senator MORGAN. On whose invitation did he go?

Mr. SHONTS. On Mr. Wallace's invitation.

Senator MORGAN. So Mr. Wallace would know more than you know about his reasons for going?

Mr. SHONTS. Yes.

Senator MORGAN. You have not known Mr. Markel a long time?

Mr. SHONTS. I never met him until I met him there.

Senator MORGAN. Oh, you had not known him at all before that time?

Mr. SHONTS. No; I never met him until I met him on the Isthmus.

Senator MORGAN. You were informed, I suppose, but did not know of your own knowledge, as to the reasons of his going there?

Mr. SHONTS. I was told, after I got there, by Mr. Markel how he came to be there.

Senator MORGAN. Yes; and also by Mr. Wallace?

Mr. SHONTS. No, sir; but there was a letter that Mr. Wallace wrote Mr. Markel that I have seen since.

Senator MORGAN. Inviting him to go?

Mr. SHONTS. Inviting him to go.

Senator MORGAN. Where is that letter?

Mr. SHONTS. I think it is here. It is in our records.

Senator MORGAN. Is it in Government Document No. 127?

Mr. SHONTS. I think it is. I think that was published. Everything bearing on that matter was turned over to the secretary, and the secretary, I suppose, included it in his report.

Senator MORGAN. What did you understand from Mr. Markel was his business on the Isthmus?

Mr. SHONTS. That Mr. Wallace had asked him to go down and give him recommendations as to the best way to handle the feeding proposition; and he had been studying the situation and talking with Governor Magoon, and I understood that first night from Governor Magoon that he had asked Mr. Markel to remain until Mr. Stevens and I got there. Otherwise he would not have been there when we got there.

Senator MORGAN. How long did he remain after you got there?

Mr. SHONTS. He left before I did. I suppose he was there a week or ten days afterwards.

Senator MORGAN. What was he occupied in doing while he was there?

Mr. SHONTS. He was present at some of our conferences on the subject and gave us his views, and then he went out over the road—Mr. Stevens gave him a special train, as I recollect it, and he went out over the road and located the commissary stores and some of the labor camps, feed mess houses for labor camps, and things of that kind.

Senator MORGAN. Here is an examination of Mr. Jacob E. Markel by the Secretary of War in Washington, December 31, 1905, that seems to contain the correspondence to which you refer. Have you ever looked over this paper?

Mr. SHONTS. No; I have not. I knew that the Secretary had Mr. Markel appear before him, because, at the Secretary's request, I telegraphed and asked Mr. Markel to come to Washington to see the Secretary.

Senator MORGAN. What for?

Mr. SHONTS. So that the Secretary could interrogate him as to the facts having to do with this matter of his relation to the canal down there.

Senator MORGAN. And Mr. Markel came here and saw the Secretary, and the Secretary seems to have made an examination of him by questions and answers, and in the course of that examination this correspondence came out?

Mr. SHONTS. I have not read it. If it is there I presume I did, but I had furnished the Secretary with all the papers in our possession bearing on that subject, and, among others, with that letter.

Senator SIMMONS. I will state that I have read that examination and that the Secretary did ask him during the examination if he had those letters, and requested him to produce the letters, and, as I understand, those were the letters which he produced.

Senator MORGAN. Where did you get this paper?

Senator SIMMONS. A man by the name of Gibbs gave me that, sir.

Senator MORGAN. I see that it is printed; where did it come from?

Senator SIMMONS. It came from the report of the War Department.

Senator MORGAN. It has not been put in the record, then, has it?

Senator SIMMONS. Oh, no.

Senator MORGAN. Mr. Chairman, this appears to be an examination conducted by the Secretary of War of Mr. Markel upon the question of his operations in the Isthmus, and, I suppose, the contracts that were entered into, and Mr. Markel's explanation of it. I will ask that this be inserted in the record, with a view of laying before the committee and the Senate what took place on that examination. I

suppose it is about the best exposition of what has occurred in regard to this whole matter, and I will therefore ask that this paper be incorporated in the record.

The CHAIRMAN. I think it is in the record somewhere, Senator; but if not, it will go in the record.

Senator KITTREDGE. Senator, if you will take this large book, Document 127, and turn to page 401, you will find it in the record. It begins earlier than that; it begins at page 387.

Senator SIMMONS. But it has not been put in the record of our hearings, has it?

Senator MORGAN. I do not care about the record of our hearings if it is in that book.

Senator KITTREDGE. Yes; it begins at page 387, Senator. I think it is the same thing that you refer to there.

Senator SIMMONS. It is the same thing, I think you will find.

Senator ANKENY. It is in the annual report, is it not?

Senator KITTREDGE. Yes.

Senator MORGAN. I find here a letter from you, Mr. Shonts, in regard to this matter, dated December 19, 1905, addressed to the Secretary of War. That was after this examination had taken place?

Mr. SHONTS. I presume so. What was the date of that? I do not remember.

Senator MORGAN. The date is not given here. Yes, it is—December 31. It was not after that examination, then?

Mr. SHONTS. No.

Senator MORGAN. This is the letter, then, that you wrote to the Secretary of War that called forth this examination?

Mr. SHONTS. I presume so. [After examining letter.] I presume that this letter had to do with the Secretary's sending for Mr. Markel.

Senator MORGAN. And you suppose, although you do not know, that the Secretary, acting upon your letter, had Mr. Markel come before him and took his statement and presented the papers which are referred to in this document?

Mr. SHONTS. That is what I suppose.

Senator MORGAN. Yes; and that was printed, you say, Senator Kittredge?

Senator HOPKINS. It is printed in the annual report of the Secretary of War.

Senator KITTREDGE. It is in Document 127.

Senator MORGAN. On what page is it, if you please? Kindly give the pages, so that the stenographer can take them.

Senator KITTREDGE. It begins at page 389. I assume that the correspondence which is set forth in these pages is the same as that in the paper Senator Simmons has.

Senator SIMMONS. These pages have simply been taken out of that report, as I understood from the gentleman who handed them to me.

Senator MORGAN. Are the original minutes kept by the Commission on the Isthmus or are they here?

Mr. SHONTS. They are kept here, with a copy there; or, where we have the meetings there, they are kept there and a copy is sent here.

Senator MORGAN. The original minutes are here?

Mr. SHONTS. Yes.

Senator MORGAN. As they are written up and signed?

Mr. SHONTS. Yes.

Senator MORGAN. Mr. Chairman, I want to see the original minutes, particularly in reference to this statement of Mr. Shonts's, which I will read:

"WASHINGTON, December 19, 1905.

"MY DEAR MR. SECRETARY: In view of your letter of to-day, calling attention to the language of the minutes of the board of directors authorizing a payment to Mr. J. E. Markel, to whom a concession was granted and subsequently abrogated for the feeding of employees on the Isthmus, I wish to make a further statement of the facts in this case, in addition to those contained in my letter to you of December 8, which has a particular bearing on the point mentioned in your letter of to-day.

"Mr. Markel was not present at the conference held on the Isthmus when it was decided to abrogate the concession which had been granted to him. At this conference between Governor Magoon, Chief Engineer Stevens, and myself (Mr. Jackson Smith, manager of labor and quarters, being present), Chief Engineer Stevens said he thought that inasmuch as Mr. Markel had entered into the contract in good faith and incurred certain expenses we should compensate him not only for his expenses, but pay him for his services as an expert, to which Governor Magoon and I agreed.

"In notifying Mr. Markel of the determination to cancel the contract, I told him that he might leave to the sense of justice of the railroad as to what would be a fair recompense to him, including services and expenses.

"The minutes of the meeting of the board of directors of the railroad dealing with this matter were subsequently prepared by the general counsel, Mr. William Nelson Cromwell, and possibly because he did not have in mind all of the facts and conditions leading up to the granting and cancellation of this concession the minutes of the railroad in their present form do not fairly and accurately present the facts. A motion for their amendment in accordance with the real facts, as set forth in this communication, will therefore be moved and undoubtedly adopted at the next meeting of the board.

"Very respectfully,

"T. P. SHONTS, *President*.

"The SECRETARY OF WAR."

Mr. SHONTS. Those are the minutes of the railroad company, you know.

Senator MORGAN. Was this transaction between Mr. Markel and the Commissioners kept on the minutes of the railroad?

Mr. SHONTS. This was a contract between the railroad and Mr. Markel.

Senator MORGAN. Between the railroad and Mr. Markel, and not between the Commissioners and Mr. Markel?

Mr. SHONTS. And not between the Commissioners and Mr. Markel.

Senator MORGAN. And Mr. Cromwell, as the general counsel, I suppose, and as one of the directors of the railroad, wrote up the minutes, according to your statement here, after the transaction had been completed?

Mr. SHONTS. Yes, sir. All of our records and minutes are written up, if they refer to an accomplished fact, after it is an accomplished fact.

Senator SIMMONS. Senator, if you will permit me, I have here an extract from the minutes as originally made. [Reading:]

"Extract from the minutes of the meeting of the board of directors of the Panama Railroad Company held in New York on November 8, 1905."

Here is the clause that the trouble arose about. In the minutes of that date this appears:

"That after considering all the aspects of the case with Mr. Markel, the latter had agreed to the cancellation of the contract previous to it becoming effective and without any obligation on the part of the company to reimburse him either for his services or his actual expenses, which latter amounted to \$5,745.97."

The amendment was made so as to leave that out. Here are the amended minutes leaving that out.

Senator MORGAN. Was the amendment made by him?

Senator SIMMONS. It was made by the board of directors, I take it, of the railroad company. The original minutes had that clause in them, and they said those were just a rough draft, and they were amended so as to leave that out.

Mr. SHONTS. That is my understanding as to what occurred. What was sent down here was the draft of the stenographer, and had not been gone over, and was not the minutes; and the misunderstanding occurred because that language (which was transmitted to the Secretary of War, as I remember the circumstance, as the minutes) was only the draft of the secretary of the meeting, the stenographer who took down the notes, and was not the prepared minutes. We usually have the minutes prepared before they are sent out; but because of come call for information this draft was sent down, and we supposed they were the minutes as prepared, and transmitted them without careful investigation, which, when our attention was called to them, we did give them; and then the subsequent proceeding was had. The railroad company had not had its meeting at that time; and at its next board meeting the final minutes as prepared by Mr. Cromwell were adopted.

Senator MORGAN. Are those the final minutes right there? Are those the final minutes as prepared by Mr. Cromwell?

Senator SIMMONS. No; those are not the final minutes. The final minutes are just two pages.

Mr. SHONTS. I can get the record from New York, Mr. Senator, and I will be very glad to do so.

Senator TALIAFERRO. Did not the draft of those minutes, which you say was prepared by the secretary, represent accurately what occurred at the directors' meeting?

Mr. SHONTS. Well, not having read them recently, I do not remember the distinguishing features between the first draft and the final draft. There was a misunderstanding, or else there would not have been any correction.

Senator TALIAFERRO. I understood you to say that the original draft was prepared by the secretary, and I presume when the directors were in session?

Mr. SHONTS. If you will permit me, we meet, and the stenographer takes down notes from what is done, and then he puts his understanding of the action into shape. Those are usually reviewed by Mr. Cromwell, because he has been with the road a great many years, and

knows all the facts having a bearing on these cases, and in very many cases those of us that are new do not know; and he goes over them to see that they correctly state what we have done, etc. Then, at the next full meeting, those are all read over, and finally approved, if no one objects. That is the mode of proceeding.

Senator TALIAFERRO. That is the usual mode of proceeding?

Mr. SHONTS. Yes; that is the usual mode of proceeding. Now, as I understand the situation, some one called for some information that we wrote over to New York for, and we got the secretary's notes, which were transmitted to the Secretary of War, but which did not accurately set forth the proceedings or the intention of the board at that meeting.

Senator TALIAFERRO. The point is, do you mean that they did not accurately set forth what occurred, or do you mean that they did not fully set forth the views of the directors?

Mr. SHONTS. If you will give me time to read over the two, I can tell you. I do not remember what the differences were. I do not remember whether it was a fuller statement or whether it was an inaccurate statement.

Senator MORGAN. You state here that "The minutes of the meeting of the board of directors of the railroad dealing with this matter were subsequently prepared by the general counsel, Mr. William Nelson Cromwell, and possibly because he did not have in mind all of the facts and conditions leading up to the granting and cancellation of this concession, the minutes of the railroad in their present form do not fairly and accurately present the facts."

Mr. SHONTS. Well, then, they did not, according to that letter.

Senator MORGAN. Do you recall in what particular the minutes did not present the facts?

Mr. SHONTS. No, sir; I do not, offhand.

Senator MORGAN. But those minutes were taken by Mr. Cromwell and changed to meet his understanding of what had taken place?

Mr. SHONTS. And then submitted to the full board at its next meeting; yes, sir.

Senator MORGAN. Have they been so submitted?

Mr. SHONTS. Oh, yes; we have had a board meeting since.

Senator MORGAN. And have they been approved?

Mr. SHONTS. Yes, sir.

Senator MORGAN. In the language that Mr. Cromwell put down?

Mr. SHONTS. I presume so. I do not remember whether there were any variations in the language or not; but I will be very glad to have the minutes sent over from New York if you would like to have them.

Senator MORGAN. We want all the knowledge we can get about this situation.

Mr. SHONTS. Yes, sir.

Senator MORGAN. You were the president of the railroad board?

Mr. SHONTS. Yes, sir.

Senator MORGAN. And you were present on these occasions?

Mr. SHONTS. Yes, sir.

Senator MORGAN. And the stenographer took down what occurred?

Mr. SHONTS. I suppose he did. That is what he was there for.

Senator MORGAN. Yes; and Mr. Cromwell subsequently discovered that it did not meet the situation, and changed it?

Mr. SHONTS. I do not remember whether Mr. Cromwell brought it to my attention first or not. I know I transmitted it as I got it to the secretary.

Senator MORGAN. Yes; and you informed him that the minutes were defective?

Mr. SHONTS. Yes; but I could not remember who called my attention to that, Senator—whether Mr. Cromwell or not. I do not think it was Mr. Cromwell, but I would not be sure about that.

Senator MORGAN. This minute related rather exclusively, perhaps, to the cancellation of the agreement with Mr. Markel—the cancellation of it?

Mr. SHONTS. If you will permit me, I can give you my understanding of the whole thing and probably clear it up quicker than in any other way, because I have not in mind the distinction between the two minutes, but I can tell you my understanding of the facts, if that would answer.

Senator MORGAN. I would like to get it, because I think you are entitled to give it.

Mr. SHONTS. As I told you a little while ago, I never met Mr. Markel until I met him on the Isthmus, and I was told that he had been sent down there at the request of Mr. Wallace, and was kept there at the request of Governor Magoon until Mr. Stevens and I got there.

Senator KITTREDGE. When did he go to the Isthmus?

Mr. SHONTS. When did he go?

Senator KITTREDGE. Yes, sir.

Mr. SHONTS. Some time prior to my going. I got there on the 26th of July, and he was there then. I do not know exactly when he went down, but I understood that he had been there two or three weeks. I do not know exactly.

Senator KITTREDGE. That was after Mr. Wallace had left the service of the Government?

Mr. SHONTS. Yes. In that connection it was explained to me afterwards that this letter that Mr. Wallace wrote Mr. Markel was not received by Mr. Markel, for some reason or other, until two or three months after it had been written; and that when he got as far as New York, on his way to the Isthmus, he met Mr. Wallace, who had come up from the Isthmus; and Mr. Wallace did not go back, but Mr. Wallace told him he had better go on down and study the situation. This is as I understand it. So he went on down, and was there when I got there, and had been studying the situation, and had been talking with Governor Magoon; and the governor said, as I remember, that he had asked Mr. Markel to stay until Mr. Stevens and I got there, so that we could get the benefit of his views on the subject.

As a result, Mr. Stevens gave Mr. Markel a train and he went out over the road, after we decided to open our commissaries, which I spoke about the other day, and he located the subcommissaries and some mess houses for labor, and things of that kind.

Then, as I have already testified, it was the consensus of opinion that the Commission would have to furnish the plant, and I took the position that inasmuch as we had to furnish the plant I thought we ought to operate the plant ourselves. But Mr. Stevens said that there was so much to do in his department that he did not want to undertake



that task. Governor Magoon said that he did not want to undertake the task, and they thought that we could arrange to let out the privilege; and they requested me, although I told them that I did not know anything about the hotel business, to prepare specifications as best we could, and get some bids, and see if we could let the concession.

Senator KITTREDGE. Will it interrupt you if I ask you a question?

Mr. SHONTS. No, sir.

Senator KITTREDGE. Up till that time what, if any, work had Mr. Markel done in reference to this contract afterwards made?

Mr. SHONTS. I did not understand that he was there figuring on a contract. I understood that he was there as an expert. Mr. Wallace had known him on the Illinois Central, as I was told, and it was to get his views as to the best solution of the feeding problem that he had asked him to go there; and the question of contracting or otherwise was never thought of by me or heard of by me until it came up in the discussion on the Isthmus between Governor Magoon and Mr. Stevens and myself.

Senator KITTREDGE. The inquiry that I wish to make is whether anything had, in fact, been done prior to the time Mr. Wallace left the service of the Government.

Mr. SHONTS. Toward feeding these people?

Senator KITTREDGE. With Markel.

Mr. SHONTS. Not that I know of, except the request that he go there and study the situation and give me his views.

Senator KITTREDGE. And what ver contract was made, and all transactions had regarding it, occurred after you had taken hold of the matter?

Mr. SHONTS. Yes, sir.

Senator KITTREDGE. And it was under your personal supervision and direction?

Mr. SHONTS. Everything pertaining to a contract was; yes, sir.

Senator DRYDEN. And was it subsequent to that that he spent the five thousand and odd dollars that are referred to there?

Mr. SHONTS. Subsequent to what?

Senator DRYDEN. Subsequent to this period you speak of?

Mr. SHONTS. No; as I recollect and as I understand, these expenses were incurred during the preceding months, as well as afterwards.

Senator DRYDEN. He had, then, as a matter of fact, spent some money prior to that time?

Senator HOPKINS. And a good deal of his time also.

Mr. SHONTS. He had spent some months; I do not know just how much time, but from what he told me—all I know is what he told me—he had spent some months in studying the processes of refrigeration, and had gone to various cities and discussed various problems with experts, and had done work of that kind preparatory to going down there. That was as I understood it.

Mr. Markel left and came north; and when I got home I said to Mr. Ross, our general purchasing officer, who was with me, "I suppose we have got to prepare our specifications and make an arrangement with some person to operate those camps and hotels." It was then suggested that that had better be done in the name of the railroad company, for the reason that the commissaries had been operated by the railroad company; the railroad company had had commissaries there, I am told, for years, and if moneys that were paid in to the

Commission were to belong to the Government and be turned into the Treasury there would be a constant outgo all the time, with no returns except by act of Congress. So, as the basis for the operation of the hotels would be the commissary in any event, and the commissary was under the jurisdiction of the railroad, it was thought best to make this contract between the railroad and whoever the privilege was given to.

Senator MORGAN. Now, let me see if I understand you. Your object in that financial arrangement and in transferring this business into the name of the railroad was to enable you to use the income from the patronage of the commissary in keeping its expenses along without the necessity of turning it through the Treasury of the United States?

Mr. SHONTS. Yes, sir; for the purpose of turning the money over and over, as we got it back, to buy other commissaries and keep going. Otherwise there would be a constant drain out from the Commission all the time into the Treasury, and no possibility of getting the returns out except through act of Congress. That was one reason.

The other reason was that the commissary is the basis—that is, the big part of it—and that was already under the jurisdiction of the railroad. While we did not intend to force the Commission or those operating this thing to buy these supplies from the commissaries, still we had the commissaries running, and we supposed that they would be patronized to a considerable extent.

Senator MORGAN. When you say that the commissaries there were under the jurisdiction of the railroad, do you mean that the railroad did the purchasing for the commissaries as well as the selling?

Mr. SHONTS. Oh, yes; the railroad, as I am told, has had a commissary store there for a great many years.

Senator MORGAN. And that arrangement in respect of the operations of the commissary was continued in the railroad company?

Mr. SHONTS. That was continued in the railroad company, and these local commissaries that we opened along the line of the canal were subcommissaries of the main commissary department of the railroad.

Senator MORGAN. So that the commissary business in the Isthmus, at least up to that date, was conducted exclusively by the railroad company?

Mr. SHONTS. There was an interim before we went there—I do not know how long it lasted—when, I am told, that it was turned over to the Commission for a short time, but was turned back again to the railroad for some reason after two or three months. That is a matter that I have only been told about. I do not know about it personally. But, as a rule, I am told that for a great many years the Panama Railroad has operated a commissary store for the benefit of its employees.

Shall I go on?

Senator MORGAN. Yes.

Mr. SHONTS. Mr. Ross and I prepared specifications as best we could, and we got bids from three firms. I had explained to every person that came in to bid on this thing that it was an untried field as far as I was concerned; that I knew nothing about the business, and everything was tentative. I asked for information and suggestions, and we got suggestions from some of these bidders themselves; and, taking into consideration the prices and the experience and the personal staff of the bidders, etc., I awarded the contract to Mr. Markel, believing

he was the lowest bidder and the one best equipped to successfully carry on the feeding of the employees.

Senator MORGAN. Before you get into a statement of what the contract was, I wish to ask you what was the character of those specifications that you speak of that were drawn up? Did they relate to the buildings that were to be erected, or to the method of conducting the commissary, or to the menu?

Mr. SHONTS. All of them—to all of those things.

Senator MORGAN. Everything connected with it?

Mr. SHONTS. Yes, sir. They set forth what the Government should furnish, and the freight rates it should charge, and the menus, or samples of menus which would be expected, the attention the rooms and buildings should receive from a sanitary point of view, etc.

Senator MORGAN. And it was upon the basis of those specifications that the contract was formulated?

Mr. SHONTS. Yes, sir; that was it.

Senator MORGAN. Is there any copy of the specifications as made by Mr. Markel anywhere in these papers?

Mr. SHONTS. We made the specifications; Mr. Markel did not make the specifications. He made suggestions and the other people made suggestions. Mr. Ross and I formulated the specifications.

Senator MORGAN. Is there any copy of the specifications upon which the contract was based?

Mr. Ross. The contract itself.

Mr. SHONTS. The contract itself sets forth the specifications, and is in that statement we made to the Secretary, and I presume it is all published.

Senator MORGAN. Now, it has been said that Mr. Markel, or somebody in the preparation of these specifications, obtained from one of the bidders, or out of the papers of one of the bidders, a menu that was put in and made the predicate of Mr. Markel's bid. Do you know anything about that?

Mr. SHONTS. Yes; I heard about that at the time. The papers were full of it.

One of the bidders—I have forgotten their name; I think it was Hudgins & Dumas—came into my office in New York, and I think I read them a copy of the menu that we had as a sample menu, and this man suggested that it might be better to amplify the matter and have a menu for each day in the week instead of one day.

I said I thought that was a good suggestion and asked him to make up his sample menu, which he did and brought it in. I do not remember whether that was before his bid or whether he brought it in with his bid. I can refresh my recollection by reading over the correspondence that took place at that time. But I remember saying to Mr. Ross, I think it was, that I thought that was a good idea, and, inasmuch as all specifications ought to be alike, that I would like to have that menu included in the other specifications also, so that they would all bid on the same specifications; and I think that that was given to Mr. Markel.

Senator MORGAN. Was that menu divided into parts or sections, so as to accommodate the gold men and the silver men?

Mr. SHONTS. Yes, sir; as I recollect it there were two sets, one sample for the silver and one for the gold men.

Senator MORGAN. It was upon the menu thus made out that Mr. Markel's contract was predicated?

Mr. SHONTS. Yes, sir.

Senator MORGAN. Who drew that contract?

Mr. SHONTS. The formal contract itself?

Senator MORGAN. Yes; the one that was signed.

Mr. SHONTS. I presume it was drawn under the advice of, or possibly by, Mr. Cromwell. I think we had the rough draft of it and Mr. Cromwell put it into shape, but I am not sure about that?

Mr. ROSS. That was drawn by Judge Charlton.

Mr. SHONTS. Judge Charlton, Mr. Ross tells me, drew the contract.

Senator MORGAN. He drew the contract?

Mr. SHONTS. Yes, sir.

Mr. ROSS. He is the law officer for the Bureau of Insular Affairs.

Senator MORGAN. Was the contract prepared over here?

Mr. ROSS. It was prepared here.

Senator MORGAN. And signed here?

Mr. ROSS. The specifications were prepared here in the form of a contract, outlining just what the railroad company would do and what the contract that we prepared would be supposed to do, and the contract was effected by the signature of those specifications. The specifications were drawn up in the form of the draft of a contract.

Senator MORGAN. I understand that; but was that done here?

Mr. ROSS. Yes, sir; that was done here.

Senator MORGAN. And was the contract signed here with the specifications in it?

Mr. SHONTS. No, sir; it was signed in New York. Now, if you will permit me—

Senator MORGAN. I think I would rather get along with this a little further before you go into anything else.

Mr. SHONTS. All right.

Senator MORGAN. How long did that contract stand before it was canceled?

Mr. SHONTS. The contract stood until we went to the Isthmus. I do not remember the date of it. It speaks for itself, but it was canceled on the Isthmus.

Senator MORGAN. It was canceled on the Isthmus? That was about how long?

Mr. SHONTS. I do not remember the date of the contract.

Senator KNOX. The contract by its terms, Senator, took effect on the 7th day of September, 1905. That is the date on which it took effect.

Senator MORGAN. Yes.

Senator KNOX. Now, when was it canceled?

Mr. SHONTS. It was canceled on the Isthmus during my second trip there.

Mr. ROSS. It must have been about the 8th of November.

Mr. SHONTS. It was on my second trip down there. I do not know whether I have anything in my pocket to refresh my recollection or not.

Senator MORGAN. What date did you give?

Senator KNOX. November 8; by a resolution of the board of directors, passed in New York on the 8th of November, 1905, the contract was canceled.

Senator MORGAN. And what was the date of it, if you please?

Senator KNOX. The 8th day of November, 1905.

Senator MORGAN. No; that is the date of the cancellation.

Senator KNOX. That is the date of the cancellation, and the date of the contract was the 7th of September.

Senator HOPKINS. So it stood for two months and a day.

Senator MORGAN. Now, was Mr. Markel on the Isthmus at the time that the contract was canceled?

Mr. SHONTS. Can I speak of this other matter that is in my mind before I get to that?

Senator MORGAN. Yes.

Mr. SHONTS. After we had passed on the bids and had decided to award the contract to Mr. Markel, in making the final draft that was signed I changed two or three features; but they were all in favor of the railroad and against the contractor—more in the interest of clearness than anything else. I simply mention that in passing, because the final draft was a little different from the prepared draft. I am right about that, am I not?

Mr. ROSS. Yes, sir; a few changes were made.

Senator MORGAN. Now, was this contract, which was drawn and signed by yourself before signature, ever confirmed, ratified, and accepted by the railroad authorities?

Mr. SHONTS. By the board?

Senator MORGAN. Yes.

Mr. SHONTS. Yes.

Senator MORGAN. Formally?

Mr. SHONTS. I suppose it was. I do not remember exactly the meeting, but the minutes will show that.

Senator MORGAN. The contract never was completed until it was signed?

Mr. SHONTS. No.

Senator MORGAN. And just before the completion of it you had made some alterations in favor of the railroad company?

Mr. SHONTS. Yes. That was the contract that was signed, as contradistinguished from the specifications in the first draft.

Senator MORGAN. So that any resolution of the board antecedent to the signature of this contract was nothing more than an indication of what the board was willing to do; not what they had done, but what they were willing to do, in dealing with Markel?

Mr. SHONTS. Yes, sir.

Senator MORGAN. Now, you do not remember, you say, whether after this contract was signed it was acted upon by the board and confirmed?

Mr. SHONTS. It was, eventually, but I do not remember just when. I do not remember the date of the meeting.

Senator MORGAN. And it was formally confirmed?

Mr. SHONTS. That is my recollection; yes, sir.

Senator MORGAN. After its formal confirmation, how long did the contract hold? How long did it stand until it was canceled?

Mr. SHONTS. I have not the dates in my mind.

Senator TALIAFERRO. The contract was canceled October 12.

Mr. SHONTS. That is, I think, the date on which I notified Mr. Markel of the date of the cancellation. Then I think the date Senator Knox gave was the date on which the board approved the action.

Senator KNOX. You seem to be under a misapprehension about the board having formally approved it. The minutes of the board [reading from page 360] held November 8, 1905, begin with the recital of the fact that the president had entered into this contract with Markel as of the date of September 7, 1905, and then they go on to recite that it had never gone into practical operation and cancel it. So that the board at the same time that it voted for the cancellation of the contract received its first formal notice of its existence.

Mr. SHONTS. I think that is right.

Senator KNOX. That is what the minutes show.

Mr. SHONTS. I think that is right. That is my recollection.

Senator MORGAN. What president is referred to—the President of the United States?

Senator KNOX. Oh, no; the president of the railroad company.

Senator MORGAN. Yes; I supposed so.

Senator TALIAFERRO. On page 378 of the annual report of the Commission for 1905 there are these cablegrams:

[Translation of cablegram of October 11, 1905.]

“ISTHMIAN, *Panama*.

“Herald has Panama dispatch saying Markel contract annulled; many inquiries. What statement do you wish to make? \* \* \*

“EDWARDS.”

[Translation of cablegram received October 11 1905.]

“ISTHMIAN, *Washington*.

“Markel contract annulled.

“MAGOON.”

[Translation of cablegram received 11.13 p. m , October 12, 1905.]

“ISTHMIAN, *Washington*.

“\* \* \* Markel contract canceled by mutual consent. Hotel and boarding accommodations will be operated by Commission.

“MAGOON.”

That last cablegram was under date of October 12, 1905.

Mr. SHONTS. I think that was the date.

Senator KNOX. Then they had a meeting of the board of directors in New York on the 7th of November following?

Senator TALIAFERRO. Yes.

Senator KNOX. And that was the first formal meeting of the board where they were advised that the contract had been made, and likewise were advised that it had been canceled?

Mr. SHONTS. That was the occasion; the whole thing was approved by the board.

Senator MORGAN. Where was Mr. Markel at the time this cancellation actually took effect?

Mr. SHONTS. He was on the Isthmus.

Senator MORGAN. He went back, then?

Mr. SHONTS. He went to the Isthmus when I went down.

Senator MORGAN. You had found him there before, had you not?

Mr. SHONTS. Yes; and then he went back with me at this time. He came to New York prepared to go down to put the contract into operation.

Senator MORGAN. And while in New York he agreed to cancel it?

Mr. SHONTS. While in New York he agreed to cancel it on the strength of these cablegrams that I had received from Mr. Stevens saying that he thought the prices were too high, and that it would have a bad effect on the men to undertake to charge them those prices; that they were being satisfactorily taken care of at less figures.

Senator MORGAN. Yes; then you and Mr. Markel went together to the Isthmus?

Mr. SHONTS. We went down there on the same boat with the consulting board.

Senator MORGAN. Was there any occasion for his going there in order to cancel the contract?

Mr. SHONTS. No; but there was occasion, at least I thought so, for him to go down so that he would be on the ground when we went over the matter carefully—Mr. Stevens and Governor Magoon and I—to decide whether or not it would be wise to cancel it, or whether we would amend it, or what we would do about it.

Senator MORGAN. The cancellation, then, did not take place until you and Mr. Markel reached the Isthmus?

Mr. SHONTS. Yes, sir.

Senator MORGAN. And after conferences with Magoon and Stevens?

Mr. SHONTS. Yes, sir.

Senator MORGAN. And altogether you concluded that the best thing to do was to cancel it?

Mr. SHONTS. That was it.

Senator MORGAN. And you all agreed to cancel it?

Mr. SHONTS. Yes; and we did cancel it, and notified him verbally and by letter.

Senator MORGAN. What month was that?

Mr. SHONTS. October, as I recollect—October 12.

Senator MORGAN. In October, 1905, you and Mr. Markel went down there. Was it early in October?

Mr. SHONTS. Yes; I think the date that the Senator gave us was the date that I notified him. I think it was October 12. That is all a matter of record.

Senator MORGAN. But you state here that "Mr. Markel was not present at the conference held on the Isthmus when it was decided to abrogate the concession which had been granted to him."

Mr. SHONTS. He was not in our meeting. He was on the Isthmus, but he was not at the meeting.

Senator MORGAN. He was not present at the meeting?

Mr. SHONTS. No.

Senator MORGAN. So you took the matter in hand and decided that you would—

Mr. SHONTS (interrupting). Exercise the right we had under the contract to cancel it.

Senator MORGAN. To cancel it?

Mr. SHONTS. Yes.

Senator MORGAN. And it was then, I suppose, that you discovered that "the minutes of the meeting of the board of directors of the railroad dealing with this matter were subsequently prepared by the general counsel, Mr. William Nelson Cromwell, and possibly because he did not have in mind all of the facts and conditions leading up to the granting and cancellation of its concession, the minutes of the rail-

road in their present form do not fairly and accurately present the facts?"

Mr. SHONTS. Oh, it was not at that time; no.

Senator MORGAN. But you were writing about that on the 19th of December?

Mr. SHONTS. Yes; but that was a good while afterwards.

Senator MORGAN. What was the occasion of calling the attention of the Secretary of War to the minutes in regard to this contract which had been canceled before that time by you and Mr. Stevens and Mr. Magoon in your meeting?

Mr. SHONTS. As I tried to explain a little while ago, my recollection is that someone—possibly the Secretary of War; I do not remember—asked for the information from New York; and that, in place of the full minutes, which had not yet been carefully prepared, being sent, there was sent this draft which had been prepared, as I was told afterwards, by the stenographer, and it was transmitted to the Secretary. Now, I presume—I do not remember—that there was something in what the Secretary got that was not clear to him, and he wrote a note about it; and then I went into it and ascertained the facts, and I gave him what I found out. I presume that is it.

Senator KNOX. You gave it to him in this letter of December 19, 1905, in reply to his letter, did you not?

Mr. SHONTS. Yes; I suppose he asked for some information.

Senator KNOX. Just look at his letter; and then there is your reply to it.

(Mr. Shonts inspected the letter referred to.)

Senator TALIAFERRO. Read it, Mr. Shonts.

Mr. SHONTS (reading):

“WAR DEPARTMENT,

“Washington, December 19, 1905.

“My DEAR Mr. SHONTS: I have your letter of December 8, 1905, concerning the contract with Jacob E. Markel, of Omaha, and its cancellation. I beg to call your attention to one thing in the record thus shown: On page 2 of the minutes of the meeting of the board of directors of November 8 it is said:

“‘That after considering all the aspects of the case with Mr. Markel, the latter had agreed to the cancellation of the contract previous to its becoming effective, and without any obligation on the part of the company to reimburse him either for his services or his actual expenses, which latter amounted to \$5,745.97.’

“If this statement be true then it would seem that by mutual consent the contract was dissolved, and there was no legal obligation on the part of either party toward the other growing out of it. In this condition the action of the directors in voting to Mr. Markel something over \$10,000 would seem to be the mere payment of a gratuity without any consideration of value moving to the company, and therefore I could hardly recommend to the President an approval of the payment made to the company under the circumstances stated. I beg to invite your attention to this, and to ask for such comment as you desire to make.

“Sincerely, yours,

WM. H. TAFT.

“Hon. T. P. SHONTS,

“Chairman Isthmian Canal Commission,

“Washington, D. C.”



On the same date—December 19—I answered as per the letter read by Senator Morgan; and it was in reply to that letter, because of the inquiry made by Secretary Taft, that I wrote him the letter read by Senator Morgan.

Does that answer the question?

Senator KNOX. The only point I wanted to make was that your reply to Secretary Taft's inquiry is your explanation of why the minutes were changed? Is that correct?

Mr. SHONTS. Not quite, Senator. The minutes themselves were never changed; but this draft did not properly set forth the intention of the directors.

Senator KNOX. The document which purported to be the minutes was changed to comply with the facts?

Mr. SHONTS. With the facts.

Senator KNOX. Yes; that is what I understand; and for the reasons set forth in your answer to Secretary Taft's letter?

Mr. SHONTS. Yes, sir.

Senator TALIAFERRO. Do you mean that there was a misstatement of facts in the original draft of the minutes of that meeting?

Mr. SHONTS. Owing out of a misapprehension, no doubt, of the secretary in getting his notes down properly.

Senator MORGAN. What was that misstatement?

Mr. SHONTS. If you will permit me, I can state all I know about this thing.

Senator MORGAN. I have asked you to do it.

Mr. SHONTS. All right. This is the situation: Mr. Markel was there practically in a dual capacity. He went there as an expert, at Mr. Wallace's suggestion, and spent time and money investigating and recommending as an expert certain lines of action which we adopted, and which we have put into effect, and which we have been operating on.

Senator KITTREDGE. Did he go there for his own benefit, or for the benefit of the Government?

Mr. SHONTS. He originally went there for the benefit of the Government—to make recommendations as to the best way of feeding those people and handling that proposition. Now, that was one capacity.

Senator KITTREDGE. From what does that appear?

Mr. SHONTS. Mr. Wallace invited him to go down there.

Senator KITTREDGE. Quite true.

Mr. SHONTS. And Governor Magoon asked him to stay there, and he had gone over the situation locally and given Magoon his recommendations. He was present at some of our conferences between Stevens, Magoon, and myself, and gave us his opinions and recommendations. He was sent out by Mr. Stevens to locate these commissary stores and mess houses, and did work of that kind.

Senator KNOX. Will you let me answer that question, please, Senator?

Senator KITTREDGE. Surely.

Senator KNOX. It is fully set forth in what you might call the preamble to Markel's bill against the Government, printed on page 361. That is where he recites the nature of his employment and the nature of the work that he performed for the Government.

Senator KITTREDGE. That is Markel's recital.

Senator KNOX. Yes; that is what I say—that is Markel's recital.

Senator KITTREDGE. I want the Government's end of it.

Mr. SHONTS. I am trying to tell you, Senator, he did do all these things when I was on the ground, and under the request from Mr. Stevens and the rest of us; and so far as all this commissary work that he did there was concerned, even if the contract that was made with him had become effective, he would have had nothing to do with that. That had nothing to do with the contract eventually made. That was entirely separate.

Senator KNOX. And, Senator, in answer to your statement that that is Markel's statement, I will say that it is not only Markel's statement, but it is the unanimous statement of the board of directors of the Panama Railroad, who resolved, after the reading of Markel's statement, "that in the judgment of the board the sum of \$10,745.97 is the fair and reasonable value of the services, expert advice, and expenditures embraced in the account rendered by Mr. J. E. Markel, and the same is audited and allowed at said sum." So that it is not only Markel's statement of what he did, but it is the unanimous admission of the board of directors of the railroad that he did it.

Senator KITTREDGE. I was getting at what happened at the inception of these business relations.

Senator TALIAFERRO. Just one word, Mr. Shonts—did you ask a question, Senator?

Senator KITTREDGE. No, no; go ahead.

Senator TALIAFERRO. About these minutes, Mr. Shonts—I would like to get that straight. Is it not possible that the original draft of the minutes of the meeting which you have referred to as having been prepared by the secretary represented accurately what occurred at that meeting, and that after you made this payment to Mr. Markel, and after a review of your action by the Secretary of War, you then amended your minutes so as to amplify that provision authorizing you to make the Markel payment?

Mr. SHONTS. No, sir; no; if you will read this letter again you will see that even when I wrote this letter I did not understand the facts. I supposed that these minutes had been prepared by Mr. Cromwell, and I sent him this letter saying that I imagined it was from Cromwell, not having been posted as to all the facts. It was even after I wrote this letter that I found out that they were not the minutes that Cromwell usually prepares—not the finished minutes sent out for us to study before we act on them.

Senator DRYDEN. Mr. Shonts, were these so-called minutes, these preliminary minutes, or whatever they may be called, anything more than a memorandum on the part of your secretary setting forth his understanding of the action of the board?

Mr. SHONTS. That is all they were. That is all they ever are.

Senator DRYDEN. Is your secretary a stenographer? Did he take down in shorthand the proceedings of the board?

Mr. SHONTS. No; not fully; no.

Senator DRYDEN. Very well. He made a memorandum of his understanding of the action of the board, but upon that memorandum being examined it was found either to be inaccurate or incomplete?

Mr. SHONTS. Yes, sir.

Senator DRYDEN. Therefore his preliminary memorandum was properly enlarged so as to state fully and fairly the real action of the board, and when that memorandum, thus enlarged, was entered as a

minute of the board in the official book of the board it was passed upon by the board, approved by the board, and after that was never altered. Is not that the fact?

Mr. SHONTS. Those are the facts, exactly, and that is our usual form; and if you will permit me, the only reason for any misunderstanding is that I never knew a case before where any so-called copy of minutes was sent out until the notes made by the secretary had been put in shape under the supervision of the general counsel, Mr. Cromwell, and when these came to me I supposed, as I say here, that they were the completed minutes sent out for review, but I found out afterwards that they were not. They were the secretary's notes, and Mr. Cromwell had never seen them at all.

Senator DRYDEN. It seems to me the mistake arises from treating the preliminary memorandum made by the secretary, which was confessedly inaccurate or incomplete, as the official minutes of the action of the board.

Mr. SHONTS. This whole correspondence grew out of that misapprehension.

Senator TALIAFERRO. Then this proceeding, Mr. Shonts, is unique in another respect. I understand you to state to the committee that this original draft of minutes represented merely memoranda taken by your secretary and not the facts that occurred at the meeting written down at the time by your secretary?

Mr. SHONTS. No; I do not mean to convey that impression. I do not know—I never have spoken to the secretary—what facts he took down, or what full notes he took down. I suppose that this represented his ideas of what was done, but it did not correctly represent the facts; that was all there was of it.

Now, if you will permit me to say one word more. I spoke of one capacity in which Mr. Markel stood with relation to this affair—that was in the capacity of an expert. The other capacity was that of a contractor. The two were entirely separate and distinct; and as a contractor we had a right, under that contract, to cancel the contract, which we did do on the Isthmus. But when we went to compensate him, we compensated him because of his expert services, of which we had received the benefit, and on which we have been operating ever since.

Senator TALIAFERRO. I am not questioning your cancellation of that contract or the justice of it. I want to get this record straight as to these minutes. At the suggestion of Senator Dryden you have made it appear to this committee that the secretary of your meeting made a memorandum of his idea of what occurred at that meeting. Is it not usual for the secretary of a meeting to write down what occurs rather than his idea of what occurs?

Mr. SHONTS. I suppose he aims to write down what occurs, but I suppose any person is likely to make a mistake, and in that case he did not get the facts.

Senator DRYDEN. Mr. Shonts, does it not occur, and occur not infrequently, perhaps, in the transaction of the business of any corporation, that even after minutes have been written by the secretary in the official minute book and brought before the committee or the board, as the case may be, such minutes are found to be either inaccurate or incomplete and are amended then and there by the action of the board?

Mr. SHONTS. It is for that very reason that we read very carefully at every meeting of the board the full minutes as recorded for the preceding meeting.

Senator KNOX. Is it not a general rule in corporate and parliamentary bodies, where minutes are required, either by law or for the convenience of the corporation, to be kept, that at each meeting about the first thing that is done is the reading of the minutes of the previous meeting, and the question as to whether they shall stand approved or be corrected?

Mr. SHONTS. Yes, sir; and it very frequently happens that we correct the minutes, in all the bodies I have ever been associated with.

Senator TALIAFERRO. That proposition is not denied; or, at least, I do not deny it. But I do maintain that it is a singular situation here, when it is stated to this committee in plain terms that the secretary of a meeting of the directors of that railway company took down his understanding of what occurred at a meeting instead of reporting the facts of the meeting as they occurred and as he heard them.

Mr. SHONTS. The secretary sits there and jots down his impressions; he does not take down in shorthand all that is said or done, but simply jots down his impressions, and he writes those out; and we simply use his notes as a basis for the preparation of the formal minutes. The trouble arose by having those sent down here, and my office transmitting them (I presume I signed the letter, formally) to the Secretary, without reading them carefully and without knowing that they were not the prepared minutes.

When my attention was called to it by the Secretary in his note, which has been read, and my answer, I still did not understand, and I undertook to account for it by the statement that Cromwell, under whose supervision I supposed they had been prepared, was not familiar with all the facts. And then it developed, afterwards, that they were not the minutes at all; that they never had been submitted to Mr. Cromwell for review and final preparation, as has been the case; and then we took the matter up and prepared the minutes which were passed by the board, and a copy of which were sent to the Secretary, with a letter explaining the original misunderstanding.

Senator TALIAFERRO. Was this correction made at the first meeting of the board held after the inaccurate minutes were made?

Mr. SHONTS. Yes, sir.

Senator TALIAFERRO. There was no meeting of the board——

Mr. SHONTS. No meeting between.

Senator TALIAFERRO. There was no meeting between?

Mr. SHONTS. No, sir.

Senator TALIAFERRO. Was Mr. Cromwell the secretary of the board?

Mr. SHONTS. No, no; the secretary is a young man we have there.

Senator TALIAFERRO. Is Mr. Cromwell present at your meetings?

Mr. SHONTS. He is always present at our meetings in the capacity of a director and also in the capacity of general counsel.

Senator TALIAFERRO. So that the minutes are referred to him as general counsel, or because of his presence at the meetings of the board and his familiarity with what occurs?

Mr. SHONTS. Because of his presence—he is there as a director; he has been there a great many years, and he is more familiar with the affairs of the company than any of the rest of us; and in the capacity of general counsel he ought to be better prepared, especially where

contracts are involved, to see that everything is according to law and that the interests of the company are protected.

Senator MORGAN. It would seem that the proper description of his office was "general factotum." Is that correct?

Mr. SHONTS. Well, I consult him a good deal about various matters; not in regard to the operations of the traffic of the road or any of those questions, but regarding everything that has to do with the legal phases.

Senator MORGAN. Now, Mr. Shonts, I was trying to prosecute this investigation somewhat systematically, if I could. We have now gotten you to the point where the contract has been signed by Mr. Markel in New York, and by you as the president of the railroad company in New York.

Mr. SHONTS. Yes.

Senator MORGAN. And that contract was taken down to the Isthmus, and Mr. Markel agreed that he would cancel it?

Mr. SHONTS. No.

Senator MORGAN. He agreed before he went to the Isthmus?

Mr. SHONTS. Yes, sir.

Senator TALIAFERRO. Will you permit me to ask just one more question before you proceed?

Senator MORGAN. Well, yes.

Senator TALIAFERRO. Mr. Shonts, did I understand you to say that the secretary of this meeting was not a stenographer?

Mr. SHONTS. No; I do not know. I do not know whether he is a stenographer or not.

Senator TALIAFERRO. You do not know whether these proceedings were taken in shorthand or not?

Mr. SHONTS. I know they were not taken in shorthand in full; but I rather think he is a stenographer—that is my impression.

Senator TALIAFERRO. How do you know that, Mr. Shonts, if I may ask that question?

Mr. SHONTS. Because the young man is going back and forth while we are talking; he is called out of the room from time to time, and he is not always there. We send him out for papers, and we go on with our discussions.

Senator TALIAFERRO. That is all.

Mr. SHONTS. I think he is a stenographer.

Senator MORGAN. Before you started and left New York and took Mr. Markel back with you, he agreed with you that the contract might be canceled?

Mr. SHONTS. Yes, sir.

Senator MORGAN. Did he impose any conditions?

Mr. SHONTS. No, sir.

Senator MORGAN. None whatever?

Mr. SHONTS. I showed him Mr. Stevens's cablegram, and I said: "Now, if they are getting a satisfactory food supply at less money, I am disposed to agree with Mr. Stevens that we should not force any excessive prices on them. If what we figured on is too good, and is better than they need or want or are willing to pay for—if they will be satisfied with less, then I think the contract should either be amended or canceled." It was only a thirty-day privilege, anyhow; we could cancel it as originally drawn upon thirty days' notice.

Senator MORGAN. Did Mr. Markel, in New York, at the time you

had this conversation with him, make any conditions, such as that he should be paid his expenses or should be paid an honorarium for his expert advice?

Mr. SHONTS. He did not. He simply said that he would trust that to me. He said, "I am perfectly willing to trust you in the matter." That was his language as I recollect it. And he said, "I am willing, if you wish, to say that you can cancel the contract at any time;" and I said, "Well, I believe that I would like to have you say that to me in writing." And he wrote it out, and I accepted it, so that it became a part of the contract.

Senator MORGAN. Then, when you got to the Isthmus, you and Mr. Magoon and Mr. Stevens got together?

Mr. SHONTS. Yes, sir.

Senator MORGAN. And Mr. Cromwell?

Mr. SHONTS. Oh, Mr. Cromwell was not on the Isthmus at all.

Senator MORGAN. And you agreed that the contract must be canceled?

Mr. SHONTS. We agreed it would be better to cancel the contract.

Senator MORGAN. You saw Mr. Markel, and he agreed to it?

Mr. SHONTS. I saw Mr. Markel, and I told him what we had decided on and he agreed to it.

Senator MORGAN. He agreed to it? He still made no conditions for the payment of his expenses?

Mr. SHONTS. Yes; he did not make any conditions, but he did say—I told him what Mr. Stevens had suggested in the meeting. I said, "When we decided to cancel it, Mr. Stevens said that you had been of great service to us, and that you had incurred expenses, and that he thought you ought to be compensated;" and I said that Judge Magoon and I agreed with Mr. Stevens in those views, and I said, "Just what will be a fair compensation I do not know;" and he said, "I am willing to leave that to you."

Senator MORGAN. Now, in the meantime some other persons had put in bids?

Mr. SHONTS. That was before the contract was let.

Senator MORGAN. Yes; I meant during that time.

Mr. SHONTS. Yes, sir.

Senator MORGAN. How many bids were put in?

Mr. SHONTS. Three.

Senator MORGAN. Three?

Mr. SHONTS. Yes.

Senator MORGAN. In addition to Mr. Markel's?

Mr. SHONTS. No; two in addition to Mr. Markel's.

Senator MORGAN. Were these bids all drawn up in due form?

Mr. SHONTS. They were based on our specifications.

Senator MORGAN. I say, based on your specifications?

Mr. SHONTS. Yes.

Senator MORGAN. And they conformed to the specifications?

Mr. SHONTS. Yes; they conformed to our specifications.

Senator MORGAN. Were they bids for a less sum of money than Mr. Markel had proposed?

Mr. SHONTS. One of them was for very much more than Mr. Markel's bid. As I recollect the figures for the monthly feeding of the gold employes—I will use that as an illustration—Mr. Markel's bid was \$30 a month. (If I am not right in these figures, if you know better,

Mr. Ross, I wish you would correct me.) One of the bidders, Mr. Balfe, bid \$45 a month on the same thing, and the bid of Messrs. Hudgins & Dumas was, as I recollect, \$14. At all events, it was a remarkably low bid, though I would not be sure that it was exactly \$14.

Shall I go on and tell you what happened, so that you will have the whole thing before you?

Senator MORGAN. Just let me ask you one additional question.

Mr. SHONTS. Yes.

Senator MORGAN. These figures that you speak of were for the gold people?

Mr. SHONTS. Yes.

Senator MORGAN. Did these same bids contain propositions in regard to the silver men?

Mr. SHONTS. Yes, sir.

Senator MORGAN. And what were they?

Mr. SHONTS. I do not remember offhand. I am using this other matter as an illustration.

Senator MORGAN. Were they greater or less than the Markel bid?

Mr. SHONTS. Well, they are not in my mind, Senator. I think they varied; I think on some things they were lower, and on some they were higher.

Senator MORGAN. Than the Markel bid?

Mr. SHONTS. Than the Markel bid.

Senator MORGAN. All of these bidders must have had it in mind that they would make upon one of the schedules what would probably be an undercharge on the other; did they not?

Mr. SHONTS. I do not know what was in their minds.

Senator MORGAN. You do not know how that was. You could not very well tell in the acceptance or rejection of an aggregate bid which was predicated upon both schedules, whether it was best to take it or not, unless you saw what effect it would have upon the silver men and also upon the gold men in respect of their patronage of the commissaries?

Mr. SHONTS. Where you have so many different classes of meals mentioned, and so many bids, no human being can figure out which is absolutely the lowest or which is the highest unless you know the number of meals of each class that is going to be bought. But before we get to that, I want to say one other thing, if you will permit me, in regard to what I did in the meantime.

Senator MORGAN. Yes.

Mr. SHONTS. When I got the Hudgins-Dumas bid, and saw that it was so very much less in that gold matter than the bid of either Balfe or Markel, it struck me that there must be some misapprehension of the specifications. I knew that Balfe's bid was prohibitive. I knew that we never could charge them any such figure as \$45 gold; so that eliminated him. I then wrote a similar letter to Hudgins & Dumas and to Markel, and called their attention to two or three essential features of the specifications. One was that the rates made on the steamship line, which were low rates, would apply to nothing except the supplies that the successful bidder would ship for consumption by the employees of either the Canal Commission or the railroad. Fearing, without knowing, that they might have concluded that they could take advantage of those low rates to ship any quantity of supplies to

the Isthmus to sell indiscriminately, or to ship down the west coast of South America, I called their attention to that particularly.

I called their attention also to the fact that in selling commissary stores we were under this interpretation of the clause of the treaty that we spoke about the other day, and that if the normal price of food supplies became reasonably low again we would have to close our commissary stores to certain classes of labor, under that provision of the treaty that we referred to when I was before you last week.

Senator KITTREDGE. I did not quite understand what you said.

Mr. SHONTS. I was afraid they might not understand that if the prices of food supplies on the Isthmus became low again, under our treaty obligations we might have to withdraw the sale of stores of uncooked foods. You know the contract provided both for cooked and uncooked foods—that we might have to withdraw the sale of uncooked foods to the common labor under the treaty with the Panamanian Government.

Senator KITTREDGE. Yes; but the article of the treaty to which your attention was called the other day in express terms grants to this Government the right to import all provisions and medical supplies without import cost or charge.

Mr. SHONTS. I know; but—

Senator KITTREDGE. And then the Secretary, as I understand it, followed that by a construction of that treaty and an executive order changing that provision? Is that it?

Mr. SHONTS. No; not changing it, but we had up that feature of it last week, and I understood that the Secretary's interpretation of that clause provided that we should not sell through our commissary stores to common laborers, with the saving clause that if prices became unreasonable, then we could. Now, we had that matter up when we opened our commissary stores, and an arrangement was made between Governor Magoon and President Amador, the latter consenting for his people that we should sell these commissary supplies to our common labor—our black labor—until such time as prices should again become reasonable. Having that in mind, whether right or wrong, I called attention in these letters to Markel and to Hudgins & Dumas to the fact that we might have to withdraw that privilege under that treaty, as I understood it at that time, you understand.

Senator KITTREDGE. You mean the construction of the treaty?

Mr. SHONTS. Yes; the construction of that treaty. So that if they were figuring in their bids on the privilege of continuously selling uncooked foods to every person, I thought it only fair that they should understand that that privilege might be withdrawn. If I make myself clear, that was one of the essentials that I wrote these two firms about in a letter referring to the specifications, and in order that there might be no misunderstanding as to what those specifications meant as prepared.

Senator MORGAN. All this took place before Markel signed his contract?

Mr. SHONTS. Yes; and before anybody signed the contract—before any contract was let, before an award was made—so that there would be no misunderstanding. I did not send a copy of that letter to Mr. Balfe, for his bid was so high that I knew it would be prohibitive.

The result was that Hudgins & Dumas came up to my office and said that they had had a misapprehension; that they had made their prices



very low on some things, expecting to make it up on these other things; and that if that privilege might be withdrawn from them, they then did want to change their bids; and they did change their bids so that their gold bid was \$30, the same as Markel's was, and changed a number of the others. I do not remember just how many, but the papers will show.

Senator MORGAN. They changed them so that they corresponded with Markel's bid?

Mr. SHONTS. On that particular item that I am using as an illustration—of the monthly charge for gold men.

Senator MORGAN. Did they go under his bid on any of the specifications?

Mr. SHONTS. I think there was probably one thing that they were lower on, as I recollect it, and there were others that they were higher on.

Markel answered and said that he had understood the specifications as I had explained them in this letter and did not change his bid. So, the Balfe bid being outside, not to be considered, the real consideration that we gave the bids then came down to that of Hudgins & Dumas and that of Markel. Then we came to the point that I mentioned a little while ago—that unless we knew the number of meals of each class to be used, we could not figure out accurately which would be the lowest, and no man could tell that, so we approximated as best we could; and in addition to the prices we took into consideration, in determining to whom to give the privilege, the experience of the two bidders and their organization and force, etc.

Senator MORGAN. Now, Mr. Shonts, how long was this contract to continue, under the language of the contract with Markel?

Mr. SHONTS. It could be canceled at any time on thirty days' notice.

Senator MORGAN. I know; but not, being canceled, how long was it to continue?

Mr. SHONTS. I think it was five years, unless it was canceled on thirty days' notice. That is my recollection.

Senator MORGAN. Then in the meantime, if the railroad company did not choose to cancel this contract, the Commission would be bound by it?

Mr. SHONTS. The Commission had nothing to do except to furnish the plant.

Senator MORGAN. The cancellation that was to take place was to come from the railroad company, then?

Mr. SHONTS. Yes, sir; that is right, because it was a contract between the railroad company and Markel.

Senator MORGAN. So you put it into the power of the railroad company to say whether this contract should be canceled or not?

Mr. SHONTS. Yes, sir.

Senator MORGAN. And if not canceled under five years, it was to run that long?

Mr. SHONTS. Yes, sir.

Senator MORGAN. Now, was that a very great contract—I mean, in point of expenditure, the amount of money that passed?

Mr. SHONTS. It would depend altogether upon how many people availed themselves of it.

Senator MORGAN. Taking into consideration what you had and what

you expected to have, what would be the amount of money that would probably pass in five years?

Mr. SHONTS. Oh, no man could tell. Now, as a matter of fact, in the light of what we know to-day, it would hardly amount to anything, because even on a 30-cent basis the silver men are not patronizing us at all. That is, it is nominal.

Senator DRYDEN. Was not the influence of the Commission so dominant on the board of railroad directors that their will would be almost inevitably accepted?

Mr. SHONTS. Absolutely.

Senator MORGAN. Now, Mr. Shonts, there is one more question I would like to ask before we go down to our lunch. In all of this matter was the New York charter of the railroad company consulted to ascertain whether or not that committee had a right to make a contract for the feeding of all the hands, on the gold basis or on the silver basis, that might be there during those five years?

Mr. SHONTS. We consulted our lawyer. What steps he took I do not know.

Senator MORGAN. You did consult him?

Mr. SHONTS. Yes; we asked Mr. Cromwell if that was a proper contract for the company to make.

Senator MORGAN. And did he decide, as the attorney of the railroad company, that the railroad company had the right to enter into an agreement to feed the canal hands for five years under the contract in regard to commissaries?

Mr. SHONTS. As I understood it; yes.

Senator MORGAN. Is there any provision that you know of in the charter providing for keeping hotels?

Mr. SHONTS. I never have seen the charter. All I know is that they have been running hotels there on the Isthmus for a great many years.

Senator HOPKINS. All the roads do that.

Mr. SHONTS. They built the buildings, and—

Senator KITTREDGE. They leased them, did they not?

Mr. SHONTS. Yes; they leased them.

Senator MORGAN. They had been engaged in like business for several years—many years?

Mr. SHONTS. So I was advised.

Senator MORGAN. So you were advised; but that was not for the purpose of supplying the French Panama Canal Company with provisions and commissaries for their laborers, was it?

Mr. SHONTS. I do not know about that.

Senator MORGAN. Did that railroad company ever have a contract that you know anything about with the French company?

Mr. SHONTS. Not that I know of.

Senator MORGAN. To supply their laborers and their operators of every kind with food, cooked or uncooked?

Mr. SHONTS. Not that I know of.

Senator MORGAN. You do not know anything about that?

Mr. SHONTS. Not that I know of.

Senator MORGAN. So that, without consulting the charter, you took Mr. Cromwell's opinion that this contract that you entered into with Mr. Markel for the feeding of these hands for five years was a safe contract in law, and that the canal employees as well as the railroad

employees should have the benefit of the opportunities that it afforded for living?

Mr. SHONTS. Yes, sir.

Senator MORGAN. Now I would like to get what was then your estimate of what I will call the value of the contract—that is to say, the yield of it; the amount of money that would be handled, purchasing and selling.

Mr. SHONTS. I did not make any estimate, Senator, for this reason: It was not a contract that required any employee to patronize either the cooked or uncooked food offered for sale. The whole object and purpose of that contract was to try to get an arrangement through which the employees would have the opportunity of buying cooked and uncooked food at reasonable prices. To what extent they would avail themselves of it we had no means of knowing.

Senator KITTREDGE. Why did not the Commission enter into that contract, instead of the railway company?

Mr. SHONTS. I tried to explain that a while ago. There were two reasons: First, the railroad was operating the commissary stores, and that was a very essential feature. Then there was another reason.

Senator KITTREDGE. To what extent had the railroad company been engaged in that work?

Mr. SHONTS. They had a general store there at Colon, through which they sold goods of all kinds to their employees, and had been doing it, as I was told, for years. Then there was another feature: This was largely a transportation question. The cost of transporting the food supplies there was the chief element entering into it. That was a railroad matter. The cost of transporting the food across the Isthmus, and distributing it to the various supply places, was a transportation question. That was more naturally a railroad matter.

Senator KNOX. It was a regulation, was it not, establishing a maximum rate for food?

Mr. SHONTS. Yes; that was what we were trying to get at. Then, in addition to that, there was the other feature that we did consider—that is to say, that if it was a Commission matter all the proceeds that came into the Commission's treasury would have to be turned into the United States Treasury, and the Commission would have to keep advancing money for these supplies all the time, with no credit against it except indirectly the credit of the money turned over to the United States Treasury, which we could not get out from there to reinvest and turn over again without an act of Congress. We thought it was simpler to have the railroad do that work, because the money could be turned over and over, and it would save this increasing cost in the Commission's expenses, which would not be a fair item of cost because it would be coming back all the time. That was considered also.

Senator MORGAN. I suppose, now, in view of what you have just stated, that it was the purpose to put the control of all this commissary supply business, both purchasing, selling, and transporting, in the hands of the railroad company for five years?

Mr. SHONTS. Yes; and we did put it there. No particular time was specified, but it was the intention to put it in the hands of the railroad.

Senator MORGAN. The Canal Commission as a commission could have no jurisdiction over the subject at all?

Mr. SHONTS. Not as a commission, by direct order; but their inter-

ests were so related that any wish of the Commission would have been the wish of the railroad company.

Senator MORGAN. That would depend, would it not, upon the votes of the outside people who were concerned as directors in this matter?

Mr. SHONTS. Oh, no; not with a majority of the Commission on the board. It was a "seven to six" proposition.

Senator MORGAN. I do not suppose there is any positive guarantee that a majority of the Commissioners would all vote one way every time, is there?

Mr. SHONTS. They ought to.

Senator TALIAFERRO. Make it "eight to seven."

Senator MORGAN. Well, you found out, Mr. Shonts, after investigation and after looking over the situation in connection, also, with the demands asserted by the Panamanian Government, to the effect that they had to have a hand in all the trade that went through that Zone, or some control over it, that the proposition to establish a commissary there to be conducted by the railroad company or by the Commission would not work?

Mr. SHONTS. We will have to leave out the demands of the Panamanian Republic, for they did not make any demands that I heard of. They were very nice in regard to extending the privilege, when requested to do so by Governor Magoon, of opening our commissaries to black labor. They said they recognized the facts as we set them forth. But we did think, for the reasons that I have stated, that it would be better to handle it as a railroad matter than as a commission matter; but after we got there and ascertained that the men were satisfied to have less quantities and an inferior quality to what we had intended to give them, we thought it would be wise to cancel the contract and go ahead as Mr. Stevens was then doing.

Senator MORGAN. And so, after you got through with your consideration of all the facts and with the making and cancellation of the contract with Markel, you have not as yet concluded that it would be wise to reinstate any system of that kind for feeding those hands in the Zone?

Mr. SHONTS. We have not yet found out (but, as I stated to you the other day, we will; the matter is being worked out) exactly how we stand on what we are doing. We will know better when we know just what it is costing us as a result of this experiment. This is an experiment now. We are trying the experiment of feeding them ourselves—that is, all that want to patronize us—and I say that even at less money than the Markel prices for silver men at 30 cents a day, our patronage is so small as to be nominal.

But it was not the purpose of the Commission to make money. The purpose of the Commission, and of the Commission through the railroad, was simply to afford an opportunity to the employees of the railroad and of the Commission to get good food at reasonable prices; and that we seem to have accomplished by the result of our efforts. For, as I say, they are living, and they are not patronizing us, although we are offering to keep them at 30 cents a day. And one of two results must follow: Either they are not eating enough food nor sufficient nourishment to keep them in good health, or else they are getting it cheaper than we are offering to furnish it to them—one of the two things.

Senator MORGAN. You say the Panamanian Government has been very nice about it. Did not the Panamanian Government demand that the Government of the United States, either through the railroad company or through the Commission, should not sell commissaries to their laborers at cost?

Mr. SHONTS. Not after I was there. I do not know what had preceded, or what caused this interpretation of that clause by Secretary Taft. I do not know what brought that out.

Senator MORGAN. You do not know what brought it out?

Mr. SHONTS. No, sir.

Senator MORGAN. Have you any doubt about it?

Mr. SHONTS. I have not thought about it, Senator. I was interested more particularly in what occurred after we got there and found the situation; and at that time Governor Magoon did present the situation, as I explained it here the other day, to President Amador, and they made an arrangement by which we were given the privilege of opening our commissaries, with the consent of the Panamanian Government, to our negro labor; and the only thing in that correspondence, the saving clause, was that if prices became reasonable again they would hope or expect us to withdraw.

Senator MORGAN. Did Governor Magoon present that demand on the Panamanian Government in his representative capacity as minister or in his capacity as governor of the Zone?

Mr. SHONTS. I do not remember. His letter—

Senator MORGAN. I do not care about the letters.

Mr. SHONTS. Well, I do not remember; I do not know.

(The chairman submitted the following letter from Mr. Stevens, which was directed to be made a part of the record.)

ISTHMIAN CANAL AFFAIRS,  
OFFICE OF ADMINISTRATION,  
Washington, D. C., January 27, 1906.

Hon. J. H. MILLARD,

*Chairman Senate Committee on Interoceanic Canals,  
Washington, D. C.*

SIR: In compliance with request of your committee that I give them the number and pay of the civil engineers on the staff of the Panama Canal, please find as below:

	Annual salary
1 assistant chief engineer .....	\$15,000
1 division engineer .....	9,000
1 division engineer .....	7,500
2 division engineers .....	6,000
1 division engineer .....	5,000
1 resident engineer .....	4,800
1 resident engineer .....	3,600
1 division engineer .....	3,600
4 resident engineers .....	3,300
10 assistant engineers .....	3,000
6 assistant engineers .....	2,700
7 assistant engineers .....	2,400

Very respectfully,

JOHN F. STEVENS,  
*Chief Engineer.*

The committee thereupon took a recess until 2.30 o'clock p. m.

## AFTER RECESS.

## STATEMENT OF THEODORE P. SHONTS, ESQ.—Continued.

The CHAIRMAN. If you are ready, Senator Simmons, proceed with Mr. Shonts.

Senator SIMMONS. Mr. Shonts, before I get to the particular matter that I want specially to inquire about, I wish to ask you a few questions about this Markel contract. I was not in the room when Senator Morgan was examining you this morning, and he may have gone over the same ground. First, I wish to ask you who Mr. W. E. Dauchey is?

Mr. SHONTS. Mr. Dauchey was Mr. Wallace's assistant, and he made him acting chief engineer when he came home. He is now division engineer in charge of the Culebra division.

Senator SIMMONS. Was a letter, written by Mr. Wallace, to Mr. Dauchey, June 23, 1905, about Mr. Markel, called to your attention?

Mr. SHONTS. No.

Senator SIMMONS (continuing). In which this language was used: "This will introduce to you Mr. J. E. Markel, who has been negotiating with me to take charge of all hotels connected with the department of construction and engineering."

Mr. SHONTS. I never heard of it before.

Senator SIMMONS (continuing). "He is accompanied by P. L. Markel and J. L. McLaughlin, his assistants."

Mr. SHONTS. No, sir.

Senator SIMMONS. Then, you did not know that Mr. Markel had been negotiating with Mr. Wallace, before he went on the Isthmus at all, for the purpose of having him take charge of all hotels?

Mr. SHONTS. I did not know anything about Mr. Markel until I got on the Isthmus and met him there.

Senator SIMMONS. When he came there did he say anything to you from which you could have inferred that he had had these negotiations with Mr. Wallace before going to the Isthmus at all?

Mr. SHONTS. When I reached the Isthmus Mr. Markel was there on the Isthmus.

Senator SIMMONS. Yes.

Mr. SHONTS. He told me, when Governor Magoon introduced him to me, and during that conversation, that he had gone down there at the suggestion of Mr. Wallace, Mr. Wallace having known him on the Illinois Central when he was on that road.

Senator SIMMONS. Did he say anything which led you to believe that there had been negotiations with Mr. Wallace before he went there, in pursuance of which he was to take charge of the hotels?

Mr. SHONTS. No, sir. After we got there he led me to believe—at least that was my impression from the conversation—that he was sent down by Mr. Wallace to examine the ground and report and make recommendations as to the best method of handling the feeding of the men.

Senator SIMMONS. When you first saw him there, that was before you had drawn up these specifications?

Mr. SHONTS. Oh, yes, sir.

Senator SIMMONS. After he had been there some little time. And you returned to New York leaving him there?

Mr. SHONTS. No; he returned before I did.

Senator SIMMONS. Did he go back again while you remained here?

Mr. SHONTS. He went back with me when I went down with the consulting board.

Senator SIMMONS. That was before the contracts or specifications were prepared?

Mr. SHONTS. No, sir. I went over it this morning, but I can give it to you briefly again. When I arrived on the Isthmus I found Mr. Markel there and was introduced to him.

Senator SIMMONS. Yes.

Mr. SHONTS. I understood that he was sent down by Mr. Wallace to study the situation and make recommendations as to the best method of feeding the men.

Senator SIMMONS. That was about what time?

Mr. SHONTS. This was in July. He returned before I did on that trip.

Senator SIMMONS. Yes.

Mr. SHONTS. Then I came back and prepared these specifications and awarded this contract.

Senator SIMMONS. So Mr. Markel was in this country when you prepared the specifications?

Mr. SHONTS. Yes, sir; he was in this country.

Senator SIMMONS. When you prepared these specifications you did that with the advice of Mr. Markel, did you?

Mr. SHONTS. Partly with his advice. We availed ourselves of any information in regard to that business that we could get. It was new business to us. We did not know anything about the hotel business. We consulted him, and we consulted these other men that made bids, to a greater or less extent.

Senator SIMMONS. Tell me, if you can recollect, when those bids were to be received and when the time for receiving them expired.

Mr. SHONTS. I do not remember the dates.

Senator SIMMONS. I will ask you if it was not the 4th of September?

Mr. SHONTS. I do not remember. The correspondence will show. I do not know whether it is in evidence or not.

Senator SIMMONS. Do you recall writing a letter to Hudgins & Dumas, telling them that they must have their bid in by the 4th of September or the 5th of September?

Mr. SHONTS. I remember this. That there was a holiday in there, and I notified the people that I would be in New York on a certain day, and that I would like to have the bids in on that day.

Senator SIMMONS. Yes.

Mr. SHONTS. And it happened to be a holiday. I do not remember what day it was. I think it was on Monday and I arrived in New York on Saturday, as I recollect, and after reaching New York I found out that it was a holiday.

Senator SIMMONS. And you extended the time to the next day?

Mr. SHONTS. I then telephoned the office to get hold of all of the bidders, if they could, and notify them that the next day would do just as well. That is as I recollect it.

Senator SIMMONS. On the next day, I want to ask you, the day after the holiday, did not Hudgins & Dumas put in their bid?

Mr. SHONTS. I do not remember exactly about that, whether it was that day or the next day.

Senator SIMMONS. That was the day the time was to expire, the next day after the holiday?

Mr. SHONTS. As I recollect it, that was true.

Senator SIMMONS. I ask if they did not put their bid in the day after this holiday?

Mr. SHONTS. That is my recollection.

Senator SIMMONS. Was it not understood that that was to be the expiration of the time in which bids might be put in?

Mr. SHONTS. I think it was.

Senator SIMMONS. I will ask you whether you did not, twenty-four hours after that, receive that bid from Mr. Markel?

Mr. SHONTS. I think, as I recollect it now, that Mr. Balfe came to me and said that he had come into it late, and had not sufficient time to get his bid ready by this day, whatever day it was—the next day after the holiday—and asked for another day. I think he asked for several days, but I thought it was so pressing that I asked if he could not get it in the next day, and he said that he could. Then I told our people to notify both Markel and Hudgins & Dumas that they need not bring in their bids until the next day.

Senator SIMMONS. Had not Hudgins's bid already come in?

Mr. SHONTS. If it had, it had not been opened, or had not been disposed of. I do not remember distinctly about that.

Senator SIMMONS. First I want to ask you if you know of an affidavit filed by Hudgins & Dumas with the President charging that they were unfairly dealt with?

Mr. SHONTS. Yes; they sent in some papers; probably in the shape of an affidavit.

Senator SIMMONS. It was an affidavit, was it not?

Mr. SHONTS. Yes; I suppose so. I do not remember.

Senator SIMMONS. Did you see that affidavit?

Mr. SHONTS. Yes; that was sent to me.

Senator SIMMONS. Did not that affidavit charge that the bidding was concluded as to them on this day after the holiday and kept open for this other man?

Mr. SHONTS. Balfe and the other man?

Senator SIMMONS. Not Balfe, but Markel—until the next day?

Mr. SHONTS. I do not remember the circumstances of all those things. But I do remember that the postponement was at the request of Mr. Balfe.

Senator SIMMONS. I want to ask you if Messrs. Hudgins & Dumas did not incorporate with their bid a menu both for the gold list and for the silver list?

Mr. SHONTS. Yes.

Senator SIMMONS. That was filed with you, you say, the day after the holiday?

Mr. SHONTS. That is my recollection.

Senator SIMMONS. And the other, Markel's bid, was filed the next day?

Mr. SHONTS. That is my recollection.

Senator SIMMONS. I want to ask you if it is not a fact that when Markel's bid was filed it had the menu, word for word, of Hudgins & Dumas's proposition?

Mr. SHONTS. I presume it did, for I told Mr. Ross that I wanted them to bid on the same specifications, and I thought that the sugges-



tion of Hudgins & Dumas to have a menu for each day in the week was an improvement on our original idea of having a menu for only one day—one sample menu.

Senator SIMMONS. Did you know what Hudgins & Dumas's menu would be until they filed their bid?

Mr. SHONTS. I am not sure. It seems to me that they were in and we discussed that before; but I do not know whether they gave us a copy of it or not. I do not remember about that.

Senator SIMMONS. I will ask if you or anyone in the office, so far as you know, showed this menu, which accompanied Hudgins & Dumas's bid, to Mr. Markel before he put in his bid?

Mr. SHONTS. I suppose a copy of it was given to him. That is what I wanted done, so that he would bid on the same specifications.

Senator SIMMONS. Was not that showing him a part of the bid of Hudgins & Dumas, and was that proper?

Mr. SHONTS. Why, we always want on every bid the same specifications. We want each man to bid on the same thing, so far as possible.

Senator SIMMONS. In your specifications did you incorporate a menu?

Mr. SHONTS. We had a menu, yes.

Senator SIMMONS. Was not this menu that Hudgins & Dumas furnished one of their own getting up?

Mr. SHONTS. Yes.

Senator SIMMONS. It was not in the specifications?

Mr. SHONTS. Not as we prepared them; but in a conversation that we had with Hudgins & Dumas prior to the time that they brought their bid in, they suggested in place of a single sample menu a sample menu for each day of the week. I said I thought that was a good suggestion and an improvement on our original idea of having a single sample menu.

Senator SIMMONS. You did not show the bid of Hudgins & Dumas or authorize anybody to show it to Mr. Markel?

Mr. SHONTS. Not the bid; no, no. But I did want the menus shown, so that all would bid on the same menus.

Senator SIMMONS. But you did not incorporate a menu in your specifications?

Mr. SHONTS. We had a menu, but not their menu for each day in the week.

Senator SIMMONS. It was not the menu upon which Hudgins bid, nor the menu upon which Markel ultimately bid?

Mr. SHONTS. No, sir; our menu was only one single menu.

Senator SIMMONS. That was the menu Hudgins & Dumas got up, then?

Mr. SHONTS. As I recollect it. I am not sure. I never made a comparison to know whether they were exactly the same or not. Did you, Mr. Ross?

Mr. ROSS. No; I never did. Senator Simmons refers to their bid being in the day before. He was not here this morning when you explained that later you wrote to both Markel and Hudgins & Dumas, and Hudgins & Dumas put in another bid on the same day that Markel put in the revised bid.

Mr. SHONTS. Did you know about that, Senator?

Senator SIMMONS. No; I did not hear that.

Mr. SHONTS. I will tell you, and will use the same illustration that I did this morning. I have some of the figures in my mind. I have

in mind the figures quoted on the monthly gold rate. Markel's figure was \$30 a month; Balfe's was \$45; Hudgins & Dumas's I do not remember, but I think it was \$14. It was very, very much less—so much so that I knew there must be some misunderstanding some place, or there could not be that great divergence.

Senator SIMMONS. Yes.

Mr. SHONTS. Then, in order to prevent any misunderstanding, and thinking that if there was any misunderstanding it ought to be rectified before an award was made rather than afterwards, I wrote a letter to Markel and Hudgins & Dumas—

Senator SIMMONS. I heard that part and understood it.

Mr. SHONTS. Oh!

Senator SIMMONS. But did not all that happen, Mr. Shonts, after both the original bid of Markel and Hudgins & Dumas had been put in?

Mr. SHONTS. Yes; but before any award was made.

Senator SIMMONS. Before any award was made?

Mr. SHONTS. Yes; because I thought there must be some misunderstanding as to the meaning of the specifications.

Senator SIMMONS. Mr. Shonts, you do not say that the bid of Hudgins & Dumas was not lower than that of Markel, do you?

Mr. SHONTS. As finally put in by them?

Senator SIMMONS. Yes.

Mr. SHONTS. I do not know. I say no one can tell unless they know the number of meals of each class that would be consumed.

Senator SIMMONS. You have never, in your report, stated that the bid was lower, have you?

Mr. SHONTS. I do not think I have ever stated more than what I am stating now; that, taking all the elements into consideration—that is, the prices and the experience of the two firms, and the organization—

Senator SIMMONS. I understand that.

Mr. SHONTS (continuing). That I thought Markel was in better shape to carry out the contract. I do not know, as I say to you now, and as I said then, how any man could know which would be the lower unless he would know the number of each class of meals that would be purchased or sold under those various headings.

Senator KNOX. How could that affect the bid? I do not understand how that could affect the bid.

Senator SIMMONS. Whether it was less or not?

Senator KNOX. I do not see how the number of meals could affect the bid.

Mr. SHONTS. There were bids on various kinds of meals. For instance, if Hudgins & Dumas was lower on one class and higher on another, and there was more of the lower class used than of the higher, they would be the lower.

Senator KNOX. But I understood you to say that they all bid on the same menu, which gave three meals a day for seven days in the week. The number of meals that they would sell on the basis of so much per month per man could not make any difference in the way they would bid.

Mr. SHONTS. If you would look at the contract, there was quite a number—I do not remember how many classes of meals—and they bid on each class of meals; and they bid on taking care of the rooms, and they bid on various things; and in order to figure out which would be

the lowest you would have to know, first, the number of each class of meals, to figure out the total amount.

Senator SIMMONS. Does not the law require you to advertise and to award the contract to the lowest bidder?

Mr. SHONTS. This was a Panama Railroad contract, and we got the competitive bids through correspondence. I did not understand, and do not understand, that we were required by law to advertise in the newspapers for that. Anyway, Senator, if you will permit me, it was a great emergency, and we were receiving cablegrams from the Isthmus which made us think that there was really a crisis approaching, and we were hurrying it all we could.

Senator SIMMONS. But the law did require the Commission to award these contracts to the lowest bidder, did it not?

Mr. SHONTS. This was not a Commission contract.

Senator SIMMONS. But do you think that you could avoid that express provision of the law by shifting this contract from the Commission to the railroad?

Mr. SHONTS. We were not trying to avoid that feature of the law.

Senator SIMMONS. I do not say that you were.

Mr. SHONTS. I say that we were not. That was not in our minds. We were advised that it was not necessary under the law to advertise for a railroad proposition of that kind. Then, in another sense, we were advised that it was not a contract; it was a privilege, and we so regarded it.

Senator SIMMONS. Did you not consider the feeding of these laborers there more of a Commission matter than a railroad matter?

Mr. SHONTS. Taking care of the laborers of course is a Commission matter.

Senator SIMMONS. Yes.

Mr. SHONTS. But the method of doing it I did not understand was necessarily a Commission matter, if we could accomplish a better result for the Commission by using the railroad than we could by doing it direct.

Senator SIMMONS. Do you not think, now, that to shift this matter of feeding the laborers to the railroad was dumping upon the railroad a duty that the Commission ought to perform and that the law was intended to reach, and therefore that the same principles of law should apply to that contract made with the railroad as though it had been made with the Commission?

Mr. SHONTS. No; we did not think so, or, of course, we would have acted accordingly. I stated this morning why we preferred to handle it through the railroad. I do not know whether you were here or not.

Senator SIMMONS. I probably was not. I understand you to say that it would be difficult to determine which was the lower of two bids for feeding these people?

Mr. SHONTS. As they were prepared, as the specifications called for.

Senator SIMMONS. Therefore, if this had been a Commission contract you could not have carried it out, because you could not have determined that?

Mr. SHONTS. Yes; we would have exercised our best judgment.

Senator SIMMONS. The Secretary of War, I believe, called on you for a statement about this Markel contract, did he not?

Mr. SHONTS. I do not know. I made a statement about it.

Senator SIMMONS. That was in response to some request of his?

Mr. SHONTS. I suppose so. I do not remember.

Senator SIMMONS. In your statement did you not use this language about these bids: "The most advantageous to the railroad and to the employees, taking into consideration prices, experience, and organization?"

Mr. SHONTS. Yes.

Senator SIMMONS. You said those were the things that made the Markel contract the most advantageous?

Mr. SHONTS. Yes.

Senator SIMMONS. It was not the matter of price at all?

Mr. SHONTS. If there had been a great difference in price, or such a difference that we had known what it was, if we had had the data, we would have considered that more than we did; but, as I say, the prices were so nearly alike that I do not believe any human being can ever figure it up, unless they have additional data, which was actually lower than the other.

Senator SIMMONS. What I want to get at is: If this was properly a Commission contract, and the law requires the Commission contract to be given to the lowest bidder, you do not insist that that law was strictly complied with?

Mr. SHONTS. I will answer that by saying that I do not understand that the law does require that in Commission matters the lowest bidder shall always be given a contract. If the law does require that, then we have violated the law, for in making awards under the Commission we take into consideration the time of delivery, and we take into consideration the quality of goods, as well as the prices.

Senator SIMMONS. Now, Mr. Shonts, I want to ask you: Was it not the desire of the Commission, by reason of or on account of this man's experience, that he should have this contract?

Mr. SHONTS. Not that I know of. I do not know of any person on the Commission that had any personal predilection for him. I never heard them express it, if there was any such desire, Senator.

Senator SIMMONS. You mean, after Mr. Wallace—

Mr. SHONTS. Of course, Mr. Wallace was gone. I never talked to Mr. Wallace about it.

Senator SIMMONS. Senator Morgan asked you some questions this morning about the minutes of that meeting. I went out at the time, and I do not know that he asked the question that I wanted some information about. I notice the date of the first rough minutes here was the 8th of November, and I notice also that those minutes seem to have been based upon a statement that you made. I understood you to say, before I went out this morning, that these really were not the minutes of the meeting, but some rough notes taken by the stenographer.

Mr. SHONTS. Yes.

Senator SIMMONS. Were not those notes taken from a statement made by you to the Commission?

Mr. SHONTS. This was not the Commission at all. It was a meeting of the board of directors of the railroad. I stated, in general terms, the facts leading up to the making and the abrogation of the Markel contract.

Senator SIMMONS. In that statement you did use the language that this was canceled without any obligation on the part of the Commission, or the railroad, rather, to remunerate Mr. Markel for his services?

Mr. SHONTS. I presume that I used that language, for such was the fact.

Senator SIMMONS. There was no understanding of that kind?

Mr. SHONTS. There was no understanding. That was an absolute right under the contract, to cancel the contract.

Senator SIMMONS. Yes. That cancellation clause was put in the contract after it was executed, was it not?

Mr. SHONTS. Yes, sir. The way it came to be put in, as I explained this morning, was that I received some cablegrams from Mr. Stevens protesting that the prices were too high, and that to undertake to enforce them would cause discontent among the men, and he had been laboring hard to get their good feeling established; that what he was furnishing was not as good in quantity or quality as the contract contemplated, and yet they were satisfied with it, and therefore there was no occasion for carrying out the terms of the contract giving the quantities and qualities which it provided.

Upon receipt of those messages I sent for Mr. Markel and showed them to him, and said to him: "Of course, while we have been negotiating here, Mr. Stevens has been making experiments there, and it seems that he is getting things going better than his first cablegrams indicated, when the reports all tended to show that prompt action on our part was necessary." I said: "If he is going to get along with these men and give them what will be satisfactory to them—substantial, wholesome food at less cost—even if it is not as well served, or the surroundings are not as good, or they do not have the variety that we anticipated, my disposition is to be governed by his views on that subject. Therefore I think that we had better not go any further, but wait until we get down to the Isthmus."

Senator SIMMONS. And you and he then went down to the Isthmus together?

Mr. SHONTS. Following that, right there, he said: "Mr. Shonts, I want to do what is right about this thing. I am not going to undertake to press any advantage at all. I am willing to do anything you say. I am even willing to go to the extent of letting you cancel the contract at any time." I said: "I do not know but what that is a good suggestion. I would like to have you write me a note to that effect." That was how that came about.

Senator SIMMONS. Was there any understanding at the time the agreement was reached between you and Markel that if the contract was canceled when you got down to the Isthmus he was to receive compensation?

Mr. SHONTS. No.

Senator SIMMONS. And that he was to be reimbursed for his expenses?

Mr. SHONTS. He always said that he would leave that matter to us. He never made any demand at all.

Senator SIMMONS. Did you understand from the way in which he said that he would leave it to you that he meant that he would expect you to reimburse him?

Mr. SHONTS. Not under the contract.

Senator SIMMONS. Outside of the contract, then, as a gratuity?

Mr. SHONTS. Not as a gratuity; no, Senator. I also explained this, and I think, in order to understand this thing, we ought to keep these two matters distinctly in our minds; they were governing features with us, anyhow. Mr. Markel had gone down there and had studied the

condition of things, had studied the situation here, to post himself down there, had been in consultation with various experts in things that are all set out there, months before he went down there. When he got down to the Isthmus, or, at least, when I got down there, the question of contract had never been raised. I had not thought of contracting this at all, Senator. So that, in one sense, and in the first sense, he was an expert, sent down there to give his opinions on the best method of feeding these people.

Senator SIMMONS. Sent down there by whom? By Mr. Wallace?

Mr. SHONTS. By Mr. Wallace, in that letter that is in evidence here.

Senator SIMMONS. Did you consider then, that he was down there at that time to be paid by the Government for his expert service?

Mr. SHONTS. Yes, sir; that is what I understood.

Senator MORGAN. That letter you speak of was from Mr. Wallace to Mr. Markel?

Mr. SHONTS. Yes, sir.

Senator MORGAN. It is in Document No. 127?

Senator KNOX. Yes; I saw it this morning.

Senator SIMMONS. You did understand that he was down there as an expert to assist you in devising the best methods and means for feeding these people?

Mr. SHONTS. Yes, sir.

Senator SIMMONS. You expected at that time to compensate him for his services?

Mr. SHONTS. I did not think about it. I supposed, of course, we would.

Senator SIMMONS. But when the contract was made you thought that canceled any obligation that you might be under to him, because he had gotten the contract?

Mr. SHONTS. Really, I did not think of it, Senator. I do not remember of it having entered my mind at all. But now, just to go right on, when he went down there with me, then we had these various conferences, at some of which he was present and at some of which he was not. But on a Monday, I think following the Sunday at which we had the conference at Judge Magoon's, Mr. Stevens and myself, at which he was present, and at which Mr. Stevens had explained what he was giving the silver men, and that they were satisfied with it, and that he was only charging them 30 cents a day, Mr. Markel said if that was all that was required that he could afford to feed them at that rate.

That conference broke up, and the next day Mr. Stevens and Judge Magoon and I, with Mr. Smith, the manager of the labors and quarters division, were sitting in the room, and at this conference Mr. Stevens said that he thought, all things considered, it would be better if we just took advantage of that clause and canceled the contract, because he believed that, with the personnel he was getting built up, we could go on and carry it out without any contract. I had never originally been in favor of a contract myself. When I was down on the Isthmus before, and the matter came up, I was against the contract system. So I said: "I am very glad if we have drifted around to that position." I said: "I will notify Mr. Markel that we will cancel the contract." Then Mr. Stevens spoke up—and that was the first time the matter of compensation ever arose—and said: "I think it only fair to Mr. Markel that we compensate him. He has been of great service to us. We have adopted his ideas and plans in our buildings and in our mess

houses, and in our commissary department. We have organized our plant on his lines, and we have had the benefit of his years of experience. I think we should compensate him for these services." That is the first time the question of compensation came up with us, as I recollect it.

Senator SIMMONS. If I understand you, then, this is about the situation, and I want to get it in my mind. That at first Mr. Markel was regarded as an expert there to be paid by the Government?

Mr. SHONTS. Yes.

Senator SIMMONS. And at that time he was not considered in connection with the contract at all?

Mr. SHONTS. That is right.

Senator SIMMONS. But when he did make the contract with you, then you considered what he had done as being merged into the benefit that he would get from the contract with the Government, and that the Government had no legal liability to compensate him for those services after he had entered into that contract?

Mr. SHONTS. I do not know that I thought that out as you have stated it all. I do not know that the idea occurred to me. But I will say that if the contract had gone on, I do not suppose we would have compensated him for those expert services. I do not know whether the question would ever have arisen or not.

Senator SIMMONS. You did not pass your final resolution agreeing to pay him, or authorizing the payment of the sum in question to him upon any ground that you were legally liable to do it?

Mr. SHONTS. Not as a contract; but I think we were legally liable to him as an expert.

Senator SIMMONS. As an expert?

Mr. SHONTS. Yes; I think he could have recovered on that ground.

Senator SIMMONS. Mr. Shonts, those rough notes that we spoke of bore the date of November 8, 1905. On December-19, 1905, the Secretary wrote you a letter in which he uses this language: "I beg to call your attention to one thing in the record thus shown: On page 2 of the minutes of the meeting of the board of directors of November 8 it is said:

"That after considering all the aspects of the case with Mr. Markel, the latter had agreed to the cancellation of the contract previous to it becoming effective, and without any obligation on the part of the company to reimburse him either for his services or his actual expenses, which latter amounted to \$5,745.97."

"If this statement be true, then it would seem that by mutual consent the contract was dissolved, and there was no legal obligation on the part of either party toward the other growing out of it. In this condition the action of the directors in voting to Mr. Markel something over \$10,000 would seem to be the mere payment of a gratuity without any consideration of value moving to the company, and therefore I could hardly recommend to the President an approval of the payment made to the company under the circumstances stated."

It was after you received that letter that you made—I will not say the changes in your minutes, but it was after that that you revised the minutes, was it not?

Mr. SHONTS. The final draft of the minutes was made after that, yes.

Senator SIMMONS. After that, and when you did make the final draft of the minutes you dated them as of November 8?

Mr. SHONTS. We dated them as of the date of the meeting that we held, of course.

Senator SIMMONS. In redrafting or revising those minutes, you left out that part in the original draft which the Secretary quotes in his letter of December 19, did you not?

Mr. SHONTS. I suppose so.

Senator SIMMONS. So that the minutes are without any declaration with reference to there being no obligation to pay Mr. Markel?

Mr. SHONTS. Under the contract.

Senator SIMMONS. Under the contract.

Mr. SHONTS. I do not remember just what the language of the final minutes was, because I had personally nothing to do with it, but what caused the misunderstanding was simply this: The secretary or stenographer who took down the notes and made the first draft of the minutes that were sent here and transmitted to the Secretary wrote up the draft for correction. Even when I wrote my letter I was not conversant with the facts that developed afterwards. Mr. Cromwell, as a director and as counsel, always goes over those minutes before they are sent out; and when my attention was called to those minutes, I supposed that they had been prepared and been supervised and approved by Mr. Cromwell.

Senator SIMMONS. Had they not already been sent out? Had not this rough draft been sent to the Secretary's office?

Mr. SHONTS. Yes; that is what I am trying to get at and explain to you. It has never been the custom to send any drafts of minutes out from the office in New York until they have been put in proper shape—that is, the shape in which they would be submitted to the board at their next meeting for their final action.

Senator SIMMONS. Yes.

Mr. SHONTS. I was told, but I do not know personally, that someone asked for this information, and this draft was sent out, and it came down here, and our office supposed that it had been prepared in the usual way. So, in answer to Secretary Taft's interrogatory about that, I said to him, not knowing that it did not state the intention of the board at the time, that evidently it had been prepared by Mr. Cromwell, and that he was not conversant with all the facts; and what I tell you developed after that correspondence—that the Secretary had sent them out and that Mr. Cromwell had never seen them.

Senator SIMMONS. Yes.

Mr. SHONTS. Then I said: "We want the minutes prepared and sent down to the Secretary in their final shape, as they will be submitted to the board." That was done, and I did not see them, of course, until they came up for approval at the next meeting of the board; and that caused all this correspondence and misunderstanding.

Senator SIMMONS. When the Secretary called your attention to this matter, and you explained to him that that was a mistake, did he not himself suggest to you the corrections?

Mr. SHONTS. He said: "If that is a mistake, why do you not have it corrected?" I said: "It will be corrected at the next meeting of the board."

Senator TALLAFERRO. Before you leave that matter, Senator, I should like to ask one or two questions, with your permission, Mr. Shonts, did I understand you to say to Senator Simmons that these minutes were redrafted?



Mr. SHONTS. The minutes as finally adopted?

Senator TALIAFERRO. Yes.

Mr. SHONTS. Oh, yes, sir.

Senator TALIAFERRO. They were redrafted?

Mr. SHONTS. Redrafted under the supervision of Mr. Cromwell.

Senator TALIAFERRO. You stated at this morning's session, in response to an inquiry, or a series of inquiries, from the Senator from New Jersey (Mr. Dryden), that it was customary for the board of directors of a corporation to go over the minutes and to approve or disapprove them and make necessary changes or amendments in them. That is the custom, is it?

Mr. SHONTS. Yes, sir.

Senator TALIAFERRO. With boards of directors generally?

Mr. SHONTS. Yes, sir.

Senator TALIAFERRO. Will you state to the committee that it is equally the custom of boards of directors to redraft minutes that have been prepared by the secretary?

Mr. SHONTS. I will state what the custom has been of the Panama Railroad since I have been there. I suppose every corporation falls into its own habits. It has been the custom—and that is what misled us here—for the secretary to make a draft, which was nothing more than a rough draft (for he is not a thoughtful man) of the transactions of the board. Then that draft is used by Mr. Cromwell as a basis for the preparation of the minutes that are presented and approved or disapproved of at the next meeting of the board.

Those drafts are frequently sent out, after Mr. Cromwell prepares them, to each director, so that he can study them, if they contain contracts and things like that, so that we can act more intelligently at the next meeting. And when this draft came down here we supposed that Mr. Cromwell had passed on it, and that is what caused that misunderstanding, and caused my remark to the Secretary of War that Mr. Cromwell evidently was not acquainted with all the facts. Do I make myself clear, Senator?

Senator TALIAFERRO. Yes, you do; but I still think that there is something about that minute question that, in your interest, should be cleared up.

Mr. SHONTS. If there is anything that I can tell you that will clear it up, I am sure I want to do it.

Senator TALIAFERRO. In your letter to the Secretary of War you used this language:

"The minutes of the meeting of the board of directors of the railroad dealing with this matter were subsequently prepared by the general counsel, Mr. William Nelson Cromwell, and possibly because he did not have in mind all of the facts and conditions leading up to the granting and cancellation of this concession the minutes of the railroad in their present form do not fairly and accurately present the facts."

Mr. SHONTS. Yes, sir.

Senator TALIAFERRO. Does not that language show, instead of this being the fault of your secretary in not preparing the minutes to cover all these facts as you subsequently changed them and made them do, that there was some information that did not come before that meeting with which this secretary was not familiar, and on account of which want of information it was necessary to redraft those minutes?

Mr. SHONTS. No, sir. I supposed when I wrote that letter that Mr. Cromwell had seen those minutes. If I had known that they were only the stenographer's notes I could have accounted for it, but knowing that Mr. Cromwell was usually very careful I could only account for it on the theory of his not being familiar with all these facts.

Senator TALIAFERRO. With all these outside facts?

Mr. SHONTS. With all of these things that I have been trying to explain to you—all the facts that surrounded the making of the contract and the abrogating of it, etc., that possibly some of those things had escaped him or the wrong impression had been made on his mind. Therefore I wrote as I did. There has been nothing about that matter that we did not want every person to know about at any time. There was just the one difficulty, and I can see, and I did see—not then, but as we got into the thing—that there might be a misapprehension from the dual capacity in which we were treating with Mr. Markel, first as an expert and then as a contractor. If he had not gotten the contract he would have sent in his bill and we would never have questioned it, and there would never have been any discussion about this.

Senator TALIAFERRO. When that original draft of the minutes was made, is it not a fact that none of you expected to pay Mr. Markel anything for his services down there, either on the professional side or on account of the contract?

Mr. SHONTS. When the contract was executed?

Senator TALIAFERRO. When the first draft of these minutes was made.

Mr. SHONTS. No, sir. From the time that Mr. Stevens made the suggestion on the Isthmus we expected to compensate Mr. Markel for his services.

Senator TALIAFERRO. And yet, when you canceled the contract, you reported that it was without any obligation on the part of the Government?

Mr. SHONTS. So far as the contract itself was concerned, yes, sir.

Senator TALIAFERRO. That is all.

Senator KNOX. May I ask a question in that same connection, Senator Simmons, because there is a very great discrepancy here, in my mind?

Senator SIMMONS. Certainly.

Senator KNOX. Referring, Mr. Shonts, to the minute of the board of directors of the railroad company, under date of November 8, 1905, which was the final minute, and the minute that recited the unanimous approval by the board of directors of the making of the contract and of the cancellation of the contract, I find this recital:

"The president further reported that before the said contract came into practical operation he and the other officers of the company had, upon the occasion of his last visit to the Isthmus, found that with the aid and advice and suggestions already given by Mr. Markel much improvement had been made in the method of feeding and housing employees, and that the officers becoming satisfied that the company could itself perform the work determined that it was to the interest of the company to exercise the right reserved to it for the abrogation of the contract, and that accordingly, and while on the Isthmus and before the contract came into operation, notice of abrogation was

given, as of right, to Mr. Markel, and that the contract by such notice became terminated."

Referring to the contract itself, I do not find any provision which reserves to the company the right to cancel that contract upon any notice whenever the company determined that it was to its interest to do so. The only clause of rescission that I find, after a careful search of the contract, is a clause that reads in this way:

"In the event that the contractor shall not perform his obligations under this agreement to the satisfaction of the general manager of the railroad company the railroad company shall have the right to cancel this agreement at any time, upon giving thirty days' notice to the contractor of such desire upon his part."

There does not seem to have been any cancellation because of the failure of the contractor to perform his obligations under this agreement to the satisfaction of the general manager of the railroad company?

Mr. SHONTS. Because he had not entered into the contract. But there is an omission. This right of immediate cancellation was given afterwards, and was made a part of the contract.

Senator KNOX. Then this Document No. 175, which sets out what purports to be the Markel contract, is not the complete Markel contract?

Mr. SHONTS. It is complete up as far as it goes; but at a later date, when we received these cablegrams that I spoke of and which I showed to Mr. Markel, Mr. Markel said that he would be willing to do whatever we thought best and would give me the privilege of canceling the contract; and I then and there had him write a letter, which I accepted, and it should be attached there, if it is not. Those letters are in existence, and they must be somewhere in the records.

Senator SIMMONS. I think it is there.

Senator KNOX. Can you refer me to that, Senator Simmons?

Senator SIMMONS. I think I could.

Senator KNOX. Can you refer me to any provision which says that the company, whenever it thought it to its interest to do so, could cancel the contract?

Senator KITTREDGE. It was by a letter.

Senator KNOX. That is what I should like to see. That explains this discrepancy.

Senator SIMMONS. There is a letter like that. I have read it.

Senator KNOX. I thought it was possible that, there not being a sufficient reason for canceling the contract under its terms, namely, if he had failed to perform, that he had agreed to a voluntary cancellation for the other reasons that you had stated; but if you say that there was a subsequent letter to the effect you have mentioned, that explains it.

Mr. SHONTS. Yes; there was a subsequent letter. I supposed it had been attached to and made a part of the contract.

Senator KNOX. Would you mind having that looked up and giving the committee the date of that letter?

Mr. SHONTS. I shall be very glad to do that.

Senator KNOX. Has any one here a copy of it?

Mr. BENSON. No, sir.

Senator KNOX. It should be in the record of the case, because this is entirely contradictory.

Mr. SHONTS. That clears it up to your mind, does it, Senator?

Senator KNOX. Perfectly.

Mr. SHONTS. That letter was written, and my acceptance of it, simultaneously, some days after this—maybe some weeks—a short time before we went to the Isthmus.

Senator KITTREDGE. Senator Knox, while we are on that subject, turn to page 402 and you will find the letter that you have in mind, I think.

Senator KNOX. Thank you.

Senator KITTREDGE. At least, the letter that I have in mind.

Senator KNOX. Which one of the letters on that page is it? There are several of them here.

Senator KITTREDGE. It is about the middle of the page.

Senator KNOX. Oh, yes. [Reading:] "It is further agreed between the company and myself, for valuable consideration received, that, independent of and in addition to any provision of said contract, the company shall have the right hereby accorded to wholly terminate and annul said contract at any time at the discretion of its president."

That explains it.

Senator SIMMONS. Up to the time this contract was entered into with Mr. Markel how were the laborers on the Isthmus being fed; that is, who was feeding them and upon what terms?

Mr. SHONTS. Until Mr. Stevens reached there, on the 26th of July, I do not think any arrangement had been made to feed the common laborers, if that is what you mean.

Senator SIMMONS. They were getting board anywhere they could get it?

Mr. SHONTS. As best they could; yes, sir.

Senator SIMMONS. Immediately upon your making this contract with Mr. Markel, as soon as its terms reached the Isthmus, was there not a great outcry there against it, upon the ground that the rates provided in it were higher, by a very considerable sum, than the rates that they were paying on the Isthmus then for board?

Mr. SHONTS. Yes, sir. That was the basis of Mr. Stevens's protest to me in regard to the prices.

Senator SIMMONS. Mr. Shonts, when you entered into this contract with Mr. Markel did you know that the rates of board prescribed in it were higher than were being paid by the laborers on the Isthmus?

Mr. SHONTS. I did not know what Mr. Stevens was doing down there. That was the only lapse between Mr. Stevens and myself. If he had kept me posted from time to time, when he did begin to make progress, as to what he was doing, we would not have been so precipitate in regard to hurrying the contract through. All the cablegrams that we received until after the contract was closed were to the effect that there really was a crisis imminent if we did not get something done to take care of the laborers. Then, when I cabled down some weeks had elapsed, and he had started these mess houses and was getting things going, and began to see that he could do better than he thought, and the men were satisfied. They were not getting what we were going to furnish them, and possibly we made the mistake of going into the thing more elaborately than we should; but we did have the sanitary features in our mind, and we were trying to give them wholesome, substantial, strengthening food.

Senator SIMMONS. Concerning the reason that you suggested to Mr. Markel that he should go with you to the Isthmus and that you would there determine the question of whether this contract should be canceled in accordance with this supplemental agreement, were you not led to make that trip and to make that suggestion to Mr. Markel because of a telegram received from Mr. Stevens saying that there was an outcry against these prices and that if that contract stood the contractor would make a million dollars profit a year under it?

Mr. SHONTS. Well, he did send some sort of message of that kind; yes, sir.

Senator SIMMONS. That was the reason you suggested that it be held in abeyance and that he make no preparations toward going down there, and sending men down there, until you got down there to look into it?

Mr. SHONTS. I immediately sent for him and showed him the message, and said: "We can not go on with this thing if there is anything like that in it."

Senator SIMMONS. When you got down there with Mr. Markel, I have seen it stated somewhere, and I want to ask if it is a fact, you discovered that there was objection on the part of the laborers to the high prices provided in the Markel contract, did you not?

Mr. SHONTS. Yes, sir.

Senator SIMMONS. Did Mr. Markel thereupon offer to reduce his prices, as provided in that contract, from 40 cents a day to 30 cents a day?

Mr. SHONTS. For the common laborers?

Senator SIMMONS. Yes.

Mr. SHONTS. Yes, sir; for the reason that what they were furnishing the common laborers, both in variety and quality, was much inferior to what we had intended to furnish them.

Senator HOPKINS. His reduction, then, from 40 cents to 30 cents a day was on the basis of his reducing the quantity and quality of food that he furnished?

Mr. SHONTS. Yes, sir; Mr. Stevens made this point: "If these men are satisfied with this food, which we can furnish them at 30 cents a day, why should we force them to buy superior food, which we have, and charge them 40 cents a day?" I said, "I think your position is well taken. If they are satisfied, we will not do it."

Senator SIMMONS. His proposition, then, was accompanied with the suggestion that the contract would be revised and a different menu established?

Mr. SHONTS. Mr. Markel, on this Sunday on the Isthmus when this interview took place, said that he thought he could furnish that class of food to the laborers at 30 cents.

Senator SIMMONS. Did he offer to do it?

Mr. SHONTS. Yes, sir.

Senator SIMMONS. To board them for 30 cents a day?

Mr. SHONTS. Yes, sir.

Senator SIMMONS. So that the fare that you had provided for them in the contract was better than they were accustomed to or required?

Mr. SHONTS. It was better than they would be satisfied with.

Senator SIMMONS. That applied to the unskilled laborers?

Mr. SHONTS. Yes, sir.

Senator SIMMONS. Was there not also at the same time a proposition by Mr. Markel to reduce the prices prescribed in his contract for board to the gold labor?

Mr. SHONTS. As I recollect it, he said that he could not do any better for the gold labor than his 30 cents a day.

Senator SIMMONS. Was there any complaint on the gold roll as to these terms of the Markel contract?

Mr. SHONTS. Oh, yes, sir; yes, indeed.

Senator SIMMONS. They also insisted that the prices were higher than they were then paying?

Mr. SHONTS. They were higher than they were paying; yes, sir.

Senator SIMMONS. On both rolls, the gold roll and the silver roll?

Mr. SHONTS. Yes, sir. When we left there we had had no experience or had made no experiments with the silver men at all—when I left there to come up and prepare this business; but we had been operating, under lease, two hotels for the gold men. But the day before I sailed, I think it was, or the day before that, a protest came in, signed, they said, by every boarder at one of the hotels, complaining as to the quality of their food, that it was tainted, awful; that everything about the hotel was filthy and that some immediate steps must be taken; so I authorized Mr. Stevens then and there to take over those two hotels from the lessees and begin to operate them ourselves. The old arrangement under the lessees, as I recollect the figures, was \$22.50 for board and \$2.50 for care of rooms, making \$25.

When I went back with Mr. Markel of course the plan had not been running long enough to furnish statistics, but Mr. Stevens's judgment was that we could take care of the silver men at 30 cents a day, without loss; but he did not think that we could do what we were doing for the gold men without loss to the Commission. Therefore we raised the rate to \$27.50 in place of \$25.

Senator SIMMONS. What was the rate in the Markel contract?

Mr. SHONTS. Thirty; but the care of the rooms there was \$6, making \$36, as compared with \$25 that they had been paying, and as compared with \$27.50 that we are charging now. So that I then gave instructions, and have since renewed them, to have our accounts kept in two ways: First, on the basis of charging into the expenses all the items that a contractor would have to pay, if we ever did contract for the feeding again, which includes transportation on the ships, transportation on the railroads, cold-storage charges, and things like that when we get the plant running; and then keeping it another way—that is, by charging the direct expenses only into it, so that we will know how we are coming out actually, blowing in the transportation charges, and we will know what it would cost if we ever decided to contract, basing the charges on the transportation and rates that we would put into the contract. We have not the results so that we can yet tell how we are coming out with the gold men, but with the silver men our latest advice is that there are so few patronizing the mess houses that it is nominal.

Senator SIMMONS. That contract was, beyond all doubt, an improper contract, was it not, under all the circumstances?

Mr. SHONTS. I do not think so. If you want my own opinion, I will say right now that I do not believe that the gold contract can be carried out by ourselves to-day, operating the best we can, at a profit.

That is my own judgment, but it is my judgment until I get these statistics and so far as I have got into the statistics. Mr. Benson really knows more about that than I do. What is your opinion, Mr. Benson?

Mr. BENSON. I think we are losing money to-day.

Senator SIMMONS. If that contract had continued, do you not think that Mr. Markel would have had very few boarders, either gold men or silver men?

Mr. SHONTS. Oh, I think so. I do not think he would have had any. The silver men at 10 cents less have quit boarding with us. I think there would have been a great rupture down there. I think Mr. Stevens was right about that. But we were doing the best we could with the information at hand. It was not very good, but it was the best that we could do.

Senator MORGAN. If that is correct, and I have no disposition to question it at all, where was Mr. Markel's prospect of making any money out of this contract?

Mr. SHONTS. He did not know, and nobody knew. Hind sight is always so much better than foresight. He did not know how many people would patronize it.

Senator MORGAN. Is there any view of this contract that can be taken that secures to Mr. Markel a profit with the undertaking?

Mr. SHONTS. If he could have had enough patronage, I think he would have made money.

Senator MORGAN. I am talking about the condition as it is.

Mr. SHONTS. He would not have made any money at all.

Senator MORGAN. Considering the question of whether he was going to get patronage or not, and what supplies would cost, and all that—the transportation question was rated at the lowest figure that the Commission was willing to concede?

Mr. SHONTS. Yes, sir.

Senator MORGAN. Taking those facts into consideration, all the facts that appeared in that contract, is there any way of demonstrating that, upon the face of that contract, at the execution of it, Mr. Markel would necessarily have made a profit?

Mr. SHONTS. No, sir; I do not think he would have necessarily made a profit.

Senator MORGAN. Is it your opinion that he would have stood any great chance to make a loss?

Mr. SHONTS. I will state our opinion at the time—and I think we should confine ourselves to what we knew at that time.

Senator MORGAN. That is right.

Mr. SHONTS. Senator, at that time the best guide we had was what the charge was on railroads in Southern States in this country for feeding the common laborers there. The common price down there is 40 cents to 42 cents, and that was how he arrived at his cost of 40 cents for that common labor, as he told me.

Senator MORGAN. They put cornfield peas into their men in the South, and you did not put them into these men?

Mr. SHONTS. We had yucca and yams and the things that they eat down there. We also put in meat rations, that they did not eat, or do not eat. We wanted to strengthen them. That was the chief reason in this revamping of the proposition that 30 cents a day would cover the cost. The meat rations were largely eliminated.

Senator MORGAN. I have never seen a negro that could be persuaded to eat beef or mutton when he could get bacon. It looks to

me as if the only question about which there is any real matter to be considered now by the committee is whether this voucher ought to pass, for the payment to Mr. Markel of—how many dollars was it—ten thousand?

Mr. SHONTS. If you will permit me, I will explain that in a minute.

Senator MORGAN. No; wait a minute. How many dollars was it?

Mr. SHONTS. All told, ten thousand seven hundred and some, as I recollect.

Senator MORGAN. Ten thousand seven hundred and something—that has passed?

Mr. SHONTS. Yes, sir.

Senator MORGAN. And been paid?

Mr. SHONTS. Yes, sir.

Senator MORGAN. And I think that the only open question is whether the Commissioners have, unfortunately or otherwise, made a mistake in expending that amount of money. That is the only question that seems to be open now, because we do not know—you can not state, at least, and I can not arrive at any conclusion about it—whether Mr. Markel had a chance to make money on this contract or not.

Mr. SHONTS. Of course he thought he had, or he would not have made it.

Senator MORGAN. He thought he had, yes; but sometimes men are much mistaken in those matters.

On that proposition I want to ask another question: When large contractors on the frontier of the line, at the outposts of the line, undertake a big job for a railroad company here on the continent, say requiring the work of a thousand hands, do those contractors supply themselves with provisions and all the facilities for feeding the labor, or do the railroad companies provide it?

Mr. SHONTS. The contractors feed their own men.

Senator MORGAN. The contractors do it?

Mr. SHONTS. Yes, sir.

Senator MORGAN. This canal most likely, and I hope it will be so, will be very largely constructed, if not entirely constructed, by contract labor; so that if the Government or the Commission had come to the conclusion to abandon the work, in a large degree, by the Government, and turned over that question to the contractor, then, under the amended contract, you had the right to give notice and to say, "Mr. Markel, you are out of this. We want to change our programme entirely?"

Mr. SHONTS. Yes, sir.

Senator MORGAN (continuing). "We want to get contractors here who feed their own men."

Mr. SHONTS. Yes, sir.

Senator MORGAN. In that view of the case, was that contract to be considered as one that was very valuable or very profitable, or otherwise, as to certainty?

Mr. SHONTS. All I know or can tell about Mr. Markel's business is what he told me. He said he thought there was a fair margin of profit if they had any reasonable amount of patronage. He did not think there was any very great profit in it at the figures at which he was to furnish food of the quality and variety specified. In the light of what has transpired since, I think he would have suffered a loss.

Senator MORGAN. I just wanted to get your view.



Mr. SHONTS. That is my own judgment. That is a matter of judgment. The way it has developed, I believe that he would have incurred a loss, when you consider that he would have gotten his men down there and all the expenses to which he would have been subjected.

Senator MORGAN. It would have taken a large amount of capital, would it not?

Mr. SHONTS. He would have had to have a good deal of money, maybe a couple of hundred thousand dollars, to get started. If he had had that much invested down there, the way it has turned out, I am quite positive that he would have lost money.

Senator MORGAN. That couple of hundred thousand dollars would really have been an investment, under this arrangement, that he would have had to put in?

Mr. SHONTS. He would have had to furnish, as we figure, about that amount in order to get his personnel and the whole thing going down there.

Senator MORGAN. Then the Panama and Colon merchants would have been in competition with Mr. Markel and would have had a good deal of power, would they not?

Mr. SHONTS. They would have been in competition with him, of course, all the time. I do not know, but I suppose that it was competition that has now brought the price of those things that they buy down to the point where they do not patronize us.

Senator MORGAN. There is a limited amount of silver coinage in that country?

Mr. SHONTS. Yes, sir.

Senator MORGAN. Limited by law, by contract between the Commission and Government of Panama?

Mr. SHONTS. Yes, sir.

Senator MORGAN. The amount of coinage is limited, and the guaranty is put up by the Panama Government in one of our banks to keep that coinage at par, two for one, between gold and silver?

Mr. SHONTS. Yes, sir.

Senator MORGAN. Have not the merchants in Panama and Colon, trading with these people, the power to collect the silver coinage (excluding paper coinage, if you please) in the course of their trade, and, if they have capital enough—and I am told they are rich—to make a corner on silver there?

Mr. SHONTS. I suppose it is in their power to make it scarcer.

Senator MORGAN. Have they not the power to make a corner on silver? And have you ever known anybody engaged in a commercial enterprise anywhere in the world that could make a corner and would not do it?

Mr. SHONTS. I was told this: That the reason that the native bankers have the advantage over the International Banking Company in getting silver is that they get it in exchange for their commodities. They are all merchants.

Senator MORGAN. I am speaking in connection with the opportunity furnished to these men to make a corner on silver. Suppose they had made a corner on silver, where would Markel have been?

Mr. SHONTS. Suppose they made a corner on us in regard to getting money to pay our men?

Senator MORGAN. I am talking about Mr. Markel now. Would not that have destroyed Markel?

Mr. SHONTS. I suppose so.

Senator MORGAN. Necessarily?

Mr. SHONTS. Necessarily.

Senator MORGAN. So that the Panama bankers had Markel perfectly in their power, under this contract, did they not, to make a corner on him and stop his proceedings there in selling food to negroes and laborers and gold men too?

Mr. SHONTS. Well, in controlling the supplies there, I suppose they would have a great advantage over him.

Senator KNOX. But could they make a corner on Mr. Markel, whose customers were the people who were being employed on the canal, if the Government paid its employees in money from time to time?

Mr. SHONTS. As I understand Senator Morgan's inquiry, it was more in this direction, that if these people—these merchants there—were to get a corner on silver it would make silver scarce, so that it would be worth a premium. I presume that would be the effect of a corner, Senator?

Senator MORGAN. It would not be in circulation at all.

Mr. SHONTS. I do not know how it would affect Mr. Markel so much. The principal manner in which it would affect Mr. Markel, in my opinion, would be the competition of the merchants by selling so low there would be nothing left.

Senator KNOX. My proposition is that Mr. Markel could not be damaged by any attempt to corner the currency down on the Isthmus, so long as the employees of the Government were receiving their pay every two weeks, because they are the people who would be patronizing Mr. Markel.

Mr. SHONTS. That is the point I was trying to make in my reply, that it would affect the Commission more than it would him.

Senator KNOX. They would have to strike at Markel through the Commission?

Mr. SHONTS. Yes, sir; because we deducted from the men's wages the amounts that were due to Markel.

Senator MORGAN. To Markel?

Mr. SHONTS. Yes, sir; so that he would have got his money.

Senator MORGAN. You would have had to supply the money?

Mr. SHONTS. Yes, sir.

Senator MORGAN. Well, it is six of one and half a dozen of the other.

Mr. SHONTS. It would not hit Markel in the first place, it seems to me. A corner in silver would make it scarce and would hit the Commission first.

Senator MORGAN. As I understand this contract, the Government was under no obligation to buy provisions and furnish them to Mr. Markel?

Mr. SHONTS. No, sir.

Senator MORGAN. At cost or at any price?

Mr. SHONTS. He was to get his own provisions, where he pleased.

Senator KNOX. Will you let me ask Mr. Shonts one other question in connection with the proposed corner?

Senator SIMMONS. Certainly.

Senator KNOX. Is not the Canal Commission protected against a corner by this monetary agreement that was made by Secretary Taft?

Mr. SHONTS. That was the object of that agreement.

Senator KNOX. Yes.

Mr. SHONTS. To keep the silver on a parity with gold.

Senator MORGAN. That is as to the value of it; but the amount in circulation is not taken care of by that. I think that, notwithstanding that agreement between Secretary Taft and the Government there, the merchants in Panama and Colon and the bankers, in combination, have it perfectly in their power to bring about a scarcity of money at any time they see proper to do it.

Senator KNOX. I think that agreement not only covers the preservation of the parity, but also the supply of coinage.

Senator SIMMONS. Under that agreement a million dollars, or pesos, I do not know which, were coined here in this country for the benefit of the Isthmus.

Senator MORGAN. It protects the supply as long as these bankers keep the contract. Suppose one of them breaks it and takes to the chaparral.

Senator HOPKINS. There would be no object in a man's breaking a contract when he is responsible.

Senator MORGAN. Some of those banks I would not trust with half a dollar. [Laughter.]

Mr. SHONTS. The contract did provide that if one of them failed, the other three should pay.

Senator MORGAN. I saw that. I thought it was a queer provision.

Senator HOPKINS. It might have been to meet just such a contingency as you raise here now, Senator.

Senator MORGAN. Suppose they should all go out of business voluntarily at the same moment; they would lose nothing, except the commission on the money.

Senator KNOX. They would be killing the goose that lays the golden egg, if they strike the Commission. Their whole business down there depends on this canal work.

Senator MORGAN. This whole discussion simply leads to the conclusion, in respect of finance particularly, and in respect of everything else down there, that the United States Government ought to be absolutely independent of the Panama Government, or any bank, or anybody living on the other side of the line. It ought to conduct its own business, upon its own capital, and in its own way, and control that Zone by laws that are enacted by the Commission or by some other authority, so that they will be effectual and can be executed out of hand, without habeas corpus or any other tomfoolery.

Senator SIMMONS. Mr. Shonts, I believe there are employed on the Isthmus about 17,000 people?

Mr. SHONTS. About that, as nearly as I know now; 17,000 or 18,000.

Senator SIMMONS. About 2,500 of those are on the gold rolls?

Mr. SHONTS. Yes, sir.

Senator SIMMONS. Are any except Americans—that is, citizens of the United States—on the gold roll?

Mr. BENSON. No.

Mr. SHONTS. I understood there were a few that were picked up down there—expert fellows; white people. But there are very few. I think they are nearly all Americans.

Senator SIMMONS. They are nearly all Americans?

Mr. SHONTS. Yes.

Senator SIMMONS. In addition to the salary that the Government pays them, does it furnish them houses?

Mr. SHONTS. Quarters; yes.

Senator SIMMONS. Free?

Mr. SHONTS. Free. That is a part of their compensation.

Senator SIMMONS. And transportation?

Mr. SHONTS. Yes, sir; and transportation.

Senator SIMMONS. Are those persons reasonably satisfied with life down there?

Mr. SHONTS. Why, so far as we know now, they are. At least, we used to have a great many complaints, and now there are very few, in comparison.

Senator SIMMONS. What per cent of them return from the Isthmus shortly after they go there on account of conditions there?

Mr. SHONTS. I could not answer that off-hand, Senator, but I should say a very small percentage now. There was a time when there was almost a panic down there. That was about the time we were fussing around with all these things, trying to get them into shape.

Senator SIMMONS. Whatever may have been the health conditions down there last summer, now the health of these Americans on the roll is reasonably good, is it not?

Mr. SHONTS. It is; I will say better than that. I think it is better than reasonably good. I think it is very good.

Senator SIMMONS. Very good?

Mr. SHONTS. Yes.

Senator SIMMONS. Have you any figures indicating the average percentage of the persons on this list who are disabled from work by reason of disease?

Mr. SHONTS. I can get them. I have not got the figures in my head.

Senator SIMMONS. I should like to have them, because I think the conditions down there with reference to sanitation and health have been greatly exaggerated.

Mr. SHONTS. There is no doubt about that. I can remember a few figures offhand. Governor Magoon arrived here Sunday and he told me night before last that at Panama that Sunday was the seventy-fourth day since we had had a case of yellow fever; and at Colon, barring a case that there was a question about on December 11, it was over ninety days since there had been a case of yellow fever. We have been through during that period what is supposed to be the very worst season for yellow fever, November, at the breaking up of the wet season.

I asked him then in regard to malaria, and he said that he thought that while there is malaria and always will be, the percentage of malaria there is much less to-day than it was at any of our frontier States—Illinois, Indiana, or any of our frontier States—while they were being settled and were new country.

Senator SIMMONS. Could you tell the committee what the condition of healthfulness is with reference not only to the gold men, but to the silver men as compared with the same condition under the French operation?

Mr. SHONTS. For the month of August I had occasion to get information about that. I was going to make a little talk in Washington here before an association the 1st of November, and I cabled to get the last information to make that comparison, Senator; and the month of August was the last month for which at that time we had full statistics.

Senator SIMMONS. That was one of your sickly months?

Mr. SHONTS. Yes, sir. And the figures given me I can remember, as I had occasion to use them. Those figures showed that in August, 1882, being the second year of the French occupancy, the death rate was 112 per thousand; and in August, 1905, being the second year of our occupancy, the death rate was two-thirds of one man per thousand. They had 1,900 men employed and we had about 12,000 men employed. Of course, the more men you have the more difficult it is to maintain a percentage of health conditions. I had later information than that, not really of a statistical nature, but I think it has a bearing, and a very important bearing, on the general health conditions. Dr. Gorgas told me on the Isthmus in October that at that time, which was right in the midst of what was supposed to be the worst season, there were in the Ancon hospital, which is the big hospital, over 100 less patients than there had been for several months, notwithstanding the fact that during the three months previous we had brought in 4,000 new recruits; and it is from the new people that we recruit the hospitals and the general sickness. The people that first come there seem to have their troubles, and then, after they have been there—

Senator MORGAN. That depends on where they come from, does it not?

Mr. SHONTS. I am speaking of the Jamaicans and those from Martinique.

Senator MORGAN. That class of people?

Mr. SHONTS. Of course they constitute the bulk of the people that we brought in.

Senator SIMMONS. Is the percentage of disease among the Americans very much greater, or has it been very much greater than that among those Jamaican negroes, or West Indian negroes?

Mr. SHONTS. No. It is less.

Senator SIMMONS. It is less?

Mr. SHONTS. Yes.

Senator SIMMONS. To what is that due? The one class is immune to some of the diseases there and the other is not. Is it due to better living?

Mr. SHONTS. One class is immune to yellow fever, but I think our people have more vitality, and I think they do not take some of the commoner forms of malaria. I think they resist them better than the Jamaican negroes. And then I think our people have greater vitality, and they probably take better care of themselves. Most of our young fellows down there are a pretty good class of people and take good care of themselves and understand the importance of exercising prudence, and most of them do exercise prudence. Another illustration which I will mention is that we had 261 marines down there for fifteen months and never lost a man.

Senator SIMMONS. United States marines?

Mr. SHONTS. Yes, sir. And that was very remarkable, so their officers told me.

Senator MORGAN. There was an old disease down there—I suppose it had gone away from the Zone—known as the Chagres fever. Did you ever hear of that?

Mr. SHONTS. No, sir.

Senator MORGAN. It is all rated as malaria now?

Mr. SHONTS. Yes, sir.

Senator MORGAN. You do not understand that the Chagres fever has actually stopped, do you?

Mr. SHONTS. No, sir; but I think there is one thing that I ought to say in connection with our enormous improvement over the French records. Medical science has learned a great deal the last twenty years that they did not have the advantage of. I think there are many ways in which we can protect ourselves much better than the French could. I hardly think it is fair to the French to make those comparisons.

Senator MORGAN. Do you know anything about the history of the Chagres fever, as to whether it is not a much more fatal disease than yellow fever?

Mr. SHONTS. No; I do not.

Senator MORGAN. When I say fatal I do not mean fatal necessarily, but to a man's constitution in the way of destroying his health?

Mr. SHONTS. I think it racks a man pretty badly if he gets it. I have heard all those stories, Senator, but we ran across very few cases down there.

There is another thing that I would like to say on that subject, and that is that our staff is thoroughly alive to the importance of preserving health conditions. As soon as any of the men down there begin to show up the slightest symptoms they are taken into the hospital immediately. To white men up in our country a hospital is about the last place that we want to go; but the bulk of the laborers down there think the hospitals are pretty good things, and I think we get all of them in that are sick.

Senator SIMMONS. Are those hospitals free to both the gold and silver men?

Mr. SHONTS. Yes, sir.

Senator SIMMONS. They are separate, I suppose—one for the gold men and one for the silver men?

Mr. SHONTS. The wards are separate buildings. We have negro wards—I mean buildings—separate.

Senator SIMMONS. You say they are not charged anything while they are lying in on account of illness?

Mr. SHONTS. No. We have a certain rule allowing them thirty days' sick leave for a year. That much is free.

Senator SIMMONS. Are your hospital accommodations there now sufficient?

Mr. SHONTS. Our hospital accommodations are sufficient for the men we have there now. Once in a while they get a little crowded. Of course, a good deal depends on the general health conditions. As long as we are running as splendidly as we are now we have spare space.

Senator SIMMONS. Were they sufficient during the sickly season of the last summer?

Mr. SHONTS. There were a few times when they were a little crowded, but we got through all right.

Senator SIMMONS. Are you enlarging them so that they will be sufficient if you should have an outbreak next summer?

Mr. SHONTS. Yes, sir; and we got at one time some tents in order to have an emergency protection, but we did not have to use them. We are going ahead with the hospital work and creating more quarters.

Senator SIMMONS. Malaria is a much more serious trouble than yellow fever or any other disease, is it not?

Mr. SHONTS. It is much more common. I could not say that it is much more serious.

Senator SIMMONS. I have seen some statements that some experiments you had down there disclosed the fact that there was malaria in the blood of 60 to 70 per cent of all the people on the Isthmus.

Mr. SHONTS. A very large proportion of all those laborers that come there have malaria in their blood when they come.

Senator SIMMONS. When they come?

Mr. SHONTS. Yes, sir.

Senator MORGAN. I would like to ask you a question about that. The disease called Chagres fever, I believe, and it is my judgment about it, is the same disease that the doctors call hematuria in regions in South Carolina and clear down to Texas—that is to say, it is a slow fever, accompanied by chills and with bleeding from the kidneys. That disease is one of slow progress, but of dead certainty to destroy a man's constitution or to kill him, so that the longer you remain under the influence of the malarial climate the more certain you are to have hematuria and develop what is called a chill and fever in hematuria. Have you noticed any effect of that sort upon your people down there, after staying there, for instance, a year or two years, or have you been at it long enough to tell—that after that length of time the weaker men break down and have to go away and die?

Mr. SHONTS. We have not been there long enough, I think, to be able to tell—at least, I could not intelligently answer that question. Governor Magoon, of course, has been making a special study of that feature, and he can give you much more accurate knowledge on the subject than I can.

Senator MORGAN. That is not a mosquito disease. Nobody attributes that to the stegomyia or any other mosquito involved in the criminality of killing men. Hematuria is not a mosquito disease. Have you any knowledge of any particular precautions or preparations to prevent the effects of malarial troubles upon those people down there?

Mr. SHONTS. Before we start any labor camps we undertake to drain the stagnant water from around them; we put in our drains, and then we put in the water, and cut down the vegetation for about a half a mile strip.

Senator MORGAN. And how long is it before it gets back?

Mr. SHONTS. We have a big force of men to keep at that sort of thing. That is one reason why our sanitary expenses run so high.

Senator MORGAN. You cut down the vegetation and in six weeks it is as high as ever, is it not?

Mr. SHONTS. It would be, I suppose. It grows very rapidly, but we keep it down.

Senator MORGAN. Health conditions there depend upon——

Mr. SHONTS. They depend upon constant vigilance and a lot of money.

Senator MORGAN. And a species of horticulture that relates to the keeping down of vegetation that you can not destroy?

Mr. SHONTS. Yes, sir. There is so much moisture down there that vegetation grows very rapidly.

Senator MORGAN. In that connection there is, to my mind, a very important inquiry that this committee should establish: If large lakes are established along the valley of the Chagres River, as far up as Gamboa, so that they will spread out and flood over this vegetation

and these swamps and cover them with fresh water, would you not expect, from such a volume of water being spread over the land as that, a great protection against malaria?

Mr. SHONTS. I should think it would be a great aid to healthful conditions.

Senator MORGAN. And a great protection?

Mr. SHONTS. Yes sir.

Senator MORGAN. I must confess that that is one of the charms of the situation, to my mind, of large lakes—the largest we can get—in providing for navigation there.

Mr. SHONTS. One of the canal schemes contemplates a lake of 101 square miles.

Senator MORGAN. It would probably have a greater tendency to the destruction and prevention of these malarial troubles than everything else that you can do?

Mr. SHONTS. Yes.

Senator MORGAN. One more question: I have not got the names of the directors of your railroad clearly in mind.

Senator HOPKINS. Mr. Cromwell is one, Senator. [Laughter.]

Senator MORGAN. He is your man, not mine. [Laughter.] Now, here is Mr. J. D. de Obaldia.

Mr. SHONTS. Yes.

Senator MORGAN. Is he a native down there?

Mr. SHONTS. Yes; he is a Panaman.

Senator MORGAN. Is he a man of capital?

Mr. SHONTS. Why, I do not know how much he is worth. He is a man of standing.

Senator MORGAN. A man of standing in the community?

Mr. SHONTS. Yes.

Senator MORGAN. Is he a member of the Panama Government in anyway?

Mr. SHONTS. I think he is their minister here; is he not?

Mr. ROSS. Yes.

Mr. SHONTS. He is.

Senator MORGAN. He is the gentleman who is here as minister?

Mr. SHONTS. Yes.

Senator MORGAN. That is what I supposed. He holds a very important relation to us.

Mr. SHONTS. Yes.

Senator MORGAN. And then the minister of the United States to Panama is a director of the Panama Railroad?

Mr. SHONTS. Yes.

Senator MORGAN. That connects the Government up pretty closely with the government of the railroad, does it not?

Mr. SHONTS. I think that position was given to him as a compliment to the Panaman Government.

Senator MORGAN. Now, here is Mr. Farnham. Is he a native of America?

Mr. SHONTS. I do not know about his nativity. He looks and talks and walks and acts like an American.

Senator MORGAN. Is he a wealthy man?

Mr. SHONTS. I do not know about his means.

Senator MORGAN. Is he a man of influence?



Mr. SHONTS. I understand that he has a good deal of influence. I do not know how much or how extensive it is, Senator.

Senator MORGAN. Is he such a man as you would pick out for the director of a great railroad company?

Mr. SHONTS. Why, I think in selecting directors of any concern you take into consideration the conditions that govern that concern. He is associated, as I said the other day, with Mr. Cromwell.

Senator MORGAN. Well, that gives him a standing, of course. [Laughter.]

Mr. SHONTS. And in having a quorum it is convenient to have him as a director. He knows the property; he has been connected with it more or less, I do not know how intimately, for some years.

Senator MORGAN. Do you know when he first got into that directory?

Mr. SHONTS. Do I know?

Senator MORGAN. Yes.

Mr. SHONTS. No; possibly when this board was put in for the first time. I am not sure about that.

Senator MORGAN. Is he a man that was selected by the Commission to buy the two ships that we own?

Mr. SHONTS. No, sir; I think I am responsible for that. He has been connected with shipping for a long time and knows a good deal about ships and shipping, and knowing that, and wanting to send some one to Europe to investigate ships for sale there and make reports, he was suggested, and we sent him abroad for that purpose—to get in touch with shipowners having ships for sale, or ship agents, and get prices on specifications and submit them, which he did.

Senator MORGAN. The Commission sent him?

Mr. SHONTS. The railroad sent him.

Senator MORGAN. The railroad sent him?

Mr. SHONTS. Yes; the railroad sent him.

Senator MORGAN. You know what his report was, do you not?

Mr. SHONTS. Yes.

Senator MORGAN. That he could not find any abroad that suited?

Mr. SHONTS. Well, he found ships abroad, and the one that he was particularly anxious that we should buy, because he thought it was in many respects an ideal ship for the freighting business, being a new ship, just finished, and having a very large carrying capacity and very large openings for taking in big pieces of machinery. But they wanted more money than I thought the ship was worth in comparison with what we finally got the *Mexico* and *Havana* for from the Ward Line. That is, I thought that the advantages in the way of passenger accommodations and speed more than compensated for the difference in the size of the hatches, etc. I thought we were getting a better bargain.

Senator MORGAN. And you bought the ships from the Ward Line?

Mr. SHONTS. Yes, sir.

Senator MORGAN. And they were under American registry?

Mr. SHONTS. Yes, sir. That was also a desirable feature.

Senator MORGAN. While the ship that Mr. Farnham wanted to recommend was an English ship?

Mr. SHONTS. An English ship.

Senator MORGAN. Did he make the contracts for the ships?

Mr. SHONTS. Oh, no.

Senator MORGAN. He did not?

Mr. SHONTS. No.

Senator MORGAN. Now, just one more question about this. In these transactions about this matter of Mr. Markel, was the board of the railroad company assembled together to pass upon that contract, or did you pass upon it?

Mr. SHONTS. Before it was made?

Senator MORGAN. Yes.

Mr. SHONTS. Not as a body; no.

Senator MORGAN. You did it as president?

Mr. SHONTS. I did it as president. You see, I was in touch with the executive committee all the time.

Senator MORGAN. Yes.

Mr. SHONTS. And it was within our power to act, subject to ratification.

Senator MORGAN. So that you, as president, without the formal action or approval of the board, made this trade with Markel?

Mr. SHONTS. With Markel; yes, sir.

Senator MORGAN. And as president of the Commission you approved it?

Mr. SHONTS. No; not as president of the Commission. I was not called upon to approve it.

Senator MORGAN. Well, the members of the Commission, Mr. Magoon and Mr. Wallace—

Mr. SHONTS. Mr. Wallace, you know, was not with the Commission.

Senator MORGAN. He was not?

Mr. SHONTS. He was out before that time.

Senator MORGAN. The members of the Commission, Mr. Magoon and Mr. Stevens, the chief engineer, who was not then a member—

Mr. SHONTS. He was general manager of the railroad and chief engineer.

Senator MORGAN. He was not then, was he?

Mr. SHONTS. Yes; oh, yes. I appointed him; you see I could appoint him general manager of the railroad. He was not elected vice-president until the meeting of the directors, held afterwards.

Senator MORGAN. As president of the Commission you appointed the manager of the railroad?

Mr. SHONTS. No; as president of the railroad I appointed him manager.

Senator MORGAN. I mean, as president of the railroad.

Mr. SHONTS. Yes, sir; and a director of the railroad.

Senator MORGAN. Then, there was yourself and Mr. Magoon and who else, now, that made this contract with Markel?

Mr. SHONTS. The Markel contract?

Senator MORGAN. Yes.

Mr. SHONTS. Mr. Cromwell was called in at the final preparation of the contract. As I recollect it, Mr. Charlton first prepared it, and then when we made the few amendments that I spoke to you about, I think, this forenoon (all in favor, however, of the Commission and not in favor of the contractor), Mr. Cromwell was called in as counsel and made those changes for us before the final copy was executed.

Senator MORGAN. Then, the parties actually contracting were yourself and Mr. Cromwell and Mr. Magoon and who else?

Mr. SHONTS. I do not remember just now whether we had any other people in our conferences or not.

Senator MORGAN. So that you were representing in the contract both the Commission and the railroad company?

Mr. SHONTS. I always do. I always have to represent both. But, you see, this was a railroad contract.

Senator MORGAN. I wanted to get at the legality of the situation. I wanted to know whether this contract ever had any validity at all or not. That is my proposition. I regard it just as an effort to make a contract which failed, not only because of its illegality, but also because of the abandonment of it by the parties concerned as an expedient measure to carry on the business of providing food for the people there. I wanted to get the situation clearly on the record, if I could, as it actually was. That is all I want to ask you.

Senator SIMMONS. Mr. Shonts, do you know what kind of labor the French used in the actual work of excavation and construction?

Mr. SHONTS. No; I have heard, generally, that they had some of this Martinique labor. I understand they had some Chinese at one time; so I am told. I never have gone carefully into the history of that matter, Senator.

Senator SIMMONS. I have seen the statement made that you propose to make an effort to introduce Spanish labor.

Mr. SHONTS. We are trying to experiment with a few Spaniards down there; and I will tell you how that came about. I was told that Sir William Van Horne, in building his road in Cuba, employed very satisfactorily North-of-Spain people, and I had a call one day from the man who was his manager of construction, a man by the name of Ward. He gave me a good deal of information. Then I wrote Sir William Van Horne a letter asking him about Mr. Ward, so as to be able to see his opinion of him; and he said he was a very able and honest man, etc. He told me that they had built, I think in sixteen months, this 347 miles of road, including the engineering features, which was very quick work: that originally he was superintendent of one division of it, and another gentleman was superintendent of another division, but that he had made a specialty of these North-of-Spain people, and had had great success in handling them—that they were intelligent to a degree, docile, tractable, good workers, and had enough ambition to want to be foremen and subforemen, and he had promoted them. The result of his talk, verified by other people, was that I thought we would try 500 or 1,000 of these men and see what we could do with them.

Senator SIMMONS. Have you gone far enough with your investigations in that direction to lead you to believe that you can get a sufficient supply of that kind of labor if it proves satisfactory to do the work?

Mr. SHONTS. I will state that Mr. Ward told me that he had at one time 10,000 men of that class of labor employed, and that in his opinion there was no doubt that we could get all of that class of labor we needed. I was governed more by his opinion than by anything I have learned since, although it has been confirmed in several ways since, both as to the efficiency of the labor and as to the possibility of getting quite a large and liberal supply.

Senator SIMMONS. I am very much interested in that, because I believe we will have to get some other kind of labor down there, or the work will cost us a great deal more than we expected it to cost us. Have you any reason for believing that these North-of-Spain people could stand the climate down there much better than our Southern

Americans living on the Gulf coast, in the southern parts of Texas, for instance?

Mr. SHONTS. This Mr. Ward (and I will have to mention him again, because he is the chief authority I have) was at one time roadmaster of the Panama Railroad. He said he took the position in order to study conditions on the Isthmus, believing—according to his story, he was to a certain extent the pioneer of the Panama project in connection with our Government—that at some time our Government would get that Isthmus, and would undertake to build a canal there. Looking forward to that time, he said, he took this position in order to be able to go up and down the line and study the territory; and he thinks he is very well posted on the physical features of the Isthmus. He tells me that, in his judgment, the climates are sufficiently similar so that, with the health precautions that we are taking and enforcing, the Spaniards can live and thrive and do well there. He said, he in a less degree maintained healthful working quarters for them at Cuba, and that their percentage of sickness was very small, and from a health point of view their results were very satisfactory.

Senator SIMMONS. Did he give you any information as to the scale of wages prevailing in that country which led you to believe that you could employ them without paying too much in excess of what you are now paying?

Mr. SHONTS. Yes; he told me that his lowest grade of labor in Cuba was paid \$1, and then he graduated the work up from that.

Senator SIMMONS. A dollar of what money?

Mr. SHONTS. In gold; and that he graduated the work up, following what I think is a very sensible plan, not to pay two bases of wages to any class of labor for similar work, but graduating the character of the work and making the distinctions there. So that for work under more special difficulties he paid a higher rate of pay than for work of the ordinary classes.

Senator SIMMONS. You have brought in some of those men already?

Mr. SHONTS. We are arranging to bring in 500.

Senator SIMMONS. If they prove satisfactory they will rather solve the labor problem?

Mr. SHONTS. Well, we hope they will help to do it. If you will permit me in that connection, I will state that Mr. Stevens has had large experience with Chinese labor on the Pacific coast, when he was building those Hill lines up there—the transcontinental lines—and Mr. Stevens's own judgment is, as far as his experience goes, that the Chinese from the Canton district, from the rice fields, where they labor out of doors, and are big, sturdy fellows, would really give us more value than any other class of labor. I suppose he told you so, though, when he was before you.

Senator SIMMONS. Mr. Shonts, are the negroes that you are now employing there capable of giving good work, or are they just indolent and listless?

Mr. SHONTS. Oh, their chief characteristic is their ability to talk. They are very "strong on the jaw," and instead of working they will discuss how to do things. You know what they are, Senator Morgan. I think they are about the same as we have there in the South, except that those features are accentuated. Those fellows from Jamaica use very good English, and seem to be very proud of it, and they are rolling their words like a sweet morsel under the tongue most of the time.

Senator SIMMONS. They are of good physical development and muscular?

Mr. SHONTS. Oh, yes; they are strong enough, I think.

Senator SIMMONS. And have strength enough to work?

Mr. SHONTS. I think so.

Senator SIMMONS. But they are just lazy?

Mr. SHONTS. Yes, sir.

Senator SIMMONS. I have seen the statement made somewhere by you, I think—that their labor efficiency is only about 25 or 33 per cent of that of an American.

Mr. SHONTS. The American laborer at home; that was the estimate of the people that are working there all the time.

Senator SIMMONS. Do you mean the white man or the American negro?

Mr. SHONTS. Oh, no; white labor at home.

Senator SIMMONS. Now, you pay them now 80 cents a day in gold, I believe, on the eight-hour basis?

Mr. SHONTS. We pay them on two bases of wages, Senator.

Senator SIMMONS. The lower price is 80 cents?

Mr. SHONTS. Yes, sir.

Senator SIMMONS. Twenty cents an hour?

Mr. SHONTS. Yes, sir.

Senator SIMMONS. As their efficiency is only about one-third, then, that would be about \$3.50 that you are actually paying for labor out there?

Mr. SHONTS. Worse than that. We pay on two bases, and in order to get at it fairly I think I ought to state them. One is 80 cents and the other is \$1.04. That makes an average of 92 cents. The last pay roll I saw was the September roll, and that was divided as between the two rates of wages, you understand, in dollars and cents (not in numbers), 50.09 on the higher basis; so that 92 cents on that roll—taking that roll as an average—would be the average rate they were getting. Now, take 92 and multiply it by three, if you give them the benefit of the 33 $\frac{1}{3}$ , and you have \$2.76, which is a very high rate of pay.

Senator SIMMONS. Then the question of getting efficient labor at reasonable rates is really one of the serious problems there?

Mr. SHONTS. I think it is the most serious problem we have to contend with. I think it has more to do with the cost of the enterprise and the length of time required to do it than any other one single factor.

Senator MORGAN. You probably can get three Chinamen for \$2.76.

Mr. SHONTS. Well, we have a proposition—I do not know whether it is in such shape that we could accept it, because I do not know whether it complies with the requirements of the law or not; but we have a proposition for a dollar a day for Chinamen.

Senator MORGAN. Silver?

Mr. SHONTS. No; gold; but this is gold.

Senator MORGAN. Mr. Shonts, there are some questions that I have omitted to bring to your attention that I think are well worthy of the consideration of this committee. Is it your opinion that that Canal Zone is large enough for the purposes of that canal?

Mr. SHONTS. Do you mean wide enough?

Senator MORGAN. Yes; wide enough.

Mr. SHONTS. No, sir.

Senator MORGAN. How wide do you think it ought to be?

Mr. SHONTS. I would get it so wide that some inimical nation could not put a cannon up on one side of us and blow us out of the canal, in case we should get in there.

Senator MORGAN. They could get in there by a treaty with Panama, which is not only not prohibited but is encouraged by the Hay-Varilla treaty. In other words, the invitation is extended to them to do it, preserving to ourselves the rights that we hold in the treaty in the event that they form any other arrangement with any foreign country.

Senator HOPKINS. Under one of the plans that is suggested here we—

Senator MORGAN. As a question of policing, and as a question of taking care of the property there, and from the standpoint of the health of the canal, do you think the Zone ought to be wider?

Mr. SHONTS. No, I do not; not in point of health; I should not say so; no, sir. I certainly do not think that would cut any figure; but if a certain type of canal was adopted, and we should put in certain dams, our lakes would run outside of the Zone.

Senator MORGAN. The dam at Alajuela would be entirely outside of the Zone?

Mr. SHONTS. Outside of the Zone; yes, sir.

Senator MORGAN. In the contemplation of many engineers that is one of the most important structures connected with the canal building, is it not?

Mr. SHONTS. Looking to the future, if a lock canal should be adopted, it would be very essential.

Senator MORGAN. Yes; you think it would be very essential?

Mr. SHONTS. Yes, sir.

Senator MORGAN. What is the approximate distance from the Chagres River, I will say, or from the line of the canal there, to the Costa Rican line?

Mr. SHONTS. I could not answer that, Senator.

Senator MORGAN. Approximately?

Mr. SHONTS. It would be a rank guess; but it is not such an enormous distance.

Senator MORGAN. Fifty or a hundred miles?

Mr. SHONTS. Oh, if I were to guess, I would guess about 90 miles; but it would be just a guess.

Senator MORGAN. That is my conjecture about it, too. Now the State of Panama has its political, judicial, and other arrangements of government north of the Canal Zone, which run 5 miles farther toward Costa Rica, as well as south of it, and it claims, if I understand it, a sort of political supremacy over the Zone to connect the northern and the southern parts of that State. Do you think that it would be a proper arrangement, a beneficial arrangement to all concerned, for the United States Government to own the strip of land between the canal and the Costa Rican boundary?

Mr. SHONTS. Why, I do not know that it would be necessary to own all of it, but I think it ought to be wider than it is, and I can imagine conditions that might arise that would make it desirable to control that strip up to that point. There would be very little left in there.

Senator MORGAN. Almost nothing?

Mr. SHONTS. Almost nothing.

Senator MORGAN. Yes. So that in regard to the division of political powers (if we chose to class them as such) between the United States and the State of Panama, within the State of Panama, this is a subject that you think ought to be taken care of?

Mr. SHONTS. I do not really think I am in a position to give a very expert opinion on the subject, as I have not given it deep thought; but it seems to me that our territory is so circumscribed, and, as I understand it, we have not the power of sovereignty—we lease this territory—it is a form of lease, and we are not a sovereign power there.

Senator MORGAN. I venture to differ with you about that. I do not see any element of sovereignty that is left out of it.

Mr. SHONTS. I am just giving you—

Senator HOPKINS. Well, that is outside of your duties!

Mr. SHONTS. Yes; that is not in my line.

Senator HOPKINS. That is a matter we can take care of.

Mr. SHONTS. I am only telling you what is told me, and I do not know whether it is official or not.

Senator MORGAN. I will quote a very eminent authority on the subject. Secretary Taft, on an examination before this committee heretofore, stated, in reply to a question that I put to him, that he considered the Canal Zone as being as much a part of the United States as the island of Porto Rico. That was his view of it, and that is my view of it.

Mr. SHONTS. Well, all we have got to do is this: If you gentlemen will kindly furnish the funds, we will try to expend them honestly, at least, and wisely, if we can.

Senator SIMMONS. Mr. Shonts, are any part of the men there on the silver roll Americans?

Mr. SHONTS. I do not think so. There were a few of our hands who were originally on the silver roll, but we tried to work all the Americans over onto the gold roll.

Senator SIMMONS. Practically, now, the silver men are these negroes?

Mr. SHONTS. Blacks; yes, sir.

Senator SIMMONS. I have seen the suggestion that you abrogate, so far as the Isthmus is concerned, the eight-hour law.

Mr. SHONTS. Yes, sir.

Senator SIMMONS. Is it proposed to work them ten hours and pay them the same that you now pay them for eight hours?

Mr. SHONTS. Yes. I think that I intimated when I was here before you before that I believe we are paying too much to get effective work out of those men; and I think that they will be perfectly satisfied to work ten hours for the same compensation.

Senator SIMMONS. And get no more pay?

Mr. SHONTS. And get no more pay; and I think it would be better for the men. Of course it would increase our labor 20 per cent. We would get that much more work out of them, and I think they would be better off from the point of view of health and morals.

Senator SIMMONS. I had supposed that you proposed to reduce the hourly rate, but that the amount paid for ten hours would exceed, to some extent, the amount paid for eight hours; not to the full extent of paying them on the basis of 20 cents per hour, however.

Mr. SHONTS. If you will permit me to say so, I think we are paying too high a basis of pay.

Senator SIMMONS. Then your opinion is that we ought to let them

work ten hours and give them no more than we are now paying them for eight?

Mr. SHONTS. Yes; at least, that is my opinion.

Senator MORGAN. Have you ever considered the question of establishing a savings bank there on the Zone for these people to put their money in and get a little interest on it?

Mr. SHONTS. No; we have not. That might be an incentive to them to work and get some money ahead.

Senator MORGAN. It is everywhere else; I do not know whether it would be there or not.

Senator SIMMONS. Did you ever hear of many of that race in this country depositing in savings banks? They do not do it in my country.

Senator HOPKINS. They own over three hundred millions of property.

Senator SIMMONS. Oh, they own property; they accumulate, but they do not patronize banks, as a rule. They have never gotten into the habit of patronizing savings banks or any other kind of banks.

Mr. SHONTS. That might be a very good suggestion, Senator. We have not considered it, though.

Senator MORGAN. The negro woman in the South, the mother of the family, acts as the savings bank for different families. They put the money away in stockings and match boxes and the like of that and hide it.

Mr. SHONTS. If these laborers would work there is no reason why they should not accomplish a fair day's results. But the trouble there is just the same trouble that you gentlemen in the Southern States know about. They only seem to require a certain amount of money and when they get that they do not work. So that if we have 100 men on a roll, Mr. Stevens says that very frequently we will not get over 60 per cent of those men at work all the time. Others say as high as 70, but if we have a certain piece of work that requires a certain number of men we have to increase that number about 30 to 40 per cent in order to keep the proper number of men at work there all the time.

Senator SIMMONS. Now, Mr. Shonts, our eight-hour law obtains on the Isthmus. Do our contract laws obtain there, too?

Mr. SHONTS. I understand not, Senator.

Senator SIMMONS. Does the Chinese-exclusion law obtain there?

Mr. SHONTS. I understand not.

Senator SIMMONS. You understand they do not?

Mr. SHONTS. I understand they do not; no, sir.

Senator MORGAN. We ought to make that very clear by an act of Congress.

Mr. SHONTS. But there is a question about it. We would have gotten some proposals for Chinese labor, but in order to get it in shape for the Attorney-General to approve—

Senator SIMMONS. I suppose—I do not know—that the Government might possibly disregard the contract laws, or perhaps they do not apply to the Government. The Government might disregard the Chinese exclusion act over there; it might not apply to the Government but it would apply to a private contractor. Both the contract laws and the Chinese-exclusion law would apply to a private contractor if you were to let this work out by contract, would they not?

Mr. SHONTS. Well, that is a legal question.



Senator SIMMONS. You have not considered that?

Mr. SHONTS. No.

Senator SIMMONS. Yes; it is a legal question. Now, just one other question and I will be through with you, Mr. Shonts. Practically all the houses occupied by these men, both on the gold and silver rolls, are provided by the Government?

Mr. SHONTS. Yes.

Senator SIMMONS. Some part of these are the old houses that the French left there?

Mr. SHONTS. A great many of them, for the common labor; yes; and some of the others, too, for that matter.

Senator SIMMONS. A great many of those houses that the French left there are dilapidated and out of repair, and we are not now trying to repair them?

Mr. SHONTS. Oh, yes; we are repairing them right along.

Senator SIMMONS. All of them?

Mr. SHONTS. Not all of them. The building department has a very practical housebuilder in charge.

Senator SIMMONS. Yes.

Mr. SHONTS. And he makes an examination of all these houses, and makes an actual estimate, and recommends to the chief engineer certain houses as being worth while to repair.

Senator SIMMONS. Are not some of those old French houses badly located with reference to sanitation? Are they not in swamps and bogs?

Mr. SHONTS. Oh, of course, there are some of them that we are not, for various reasons, rebuilding.

Senator SIMMONS. You are not rebuilding any that are in these unsanitary places?

Mr. SHONTS. On, no; not unless we can make the sanitary conditions healthful, by drainage, etc.

Senator SIMMONS. You are only repairing those that are in locations which you regard as relatively healthy?

Mr. SHONTS. Yes, sir.

Senator SIMMONS. Now, your new houses that you are building—you are building those all along the line?

Mr. SHONTS. All over the Isthmus; yes, sir.

Senator SIMMONS. The canal, starting at the Pacific shore, follows, until you get to Gamboa, the valley of the Chagres, does it not?

Mr. SHONTS. Yes, sir.

Senator SIMMONS. How many villages have you between Colon and Gamboa?

Mr. SHONTS. Oh, there are a great many. They are very close. I think there are twenty-seven stops for our trains in going across that 47 miles.

Senator SIMMONS. Are those generally on the higher lands?

Mr. SHONTS. A good many of them are—some of them. They are, of course, right beside the railroad.

Senator SIMMONS. How is it as to your camps and your quarters?

Mr. SHONTS. We are locating our new quarters along the canal in the most healthful places we can select.

Senator SIMMONS. Now, is not the valley of the Chagres full of swamps or marshes of old water?

Mr. SHONTS. There are a lot of them, and those are what we are draining.

Senator SIMMONS. You are draining them?

Mr. SHONTS. Yes; around every labor camp.

Senator MORGAN. There is not much of that below Matachin, is there?

Mr. SHONTS. Not so much.

Senator SIMMONS. They are easily drained. You can easily drain them into the Chagres, can you not?

Mr. SHONTS. Yes; we are getting along well without any great difficulty in draining those places.

Senator SIMMONS. As to those marshes around Colon, where it is said that the conditions are very unhealthy, and the houses are built right in the marshes with water all around them: Those houses are not occupied at all by our laborers, are they?

Mr. SHONTS. In Colon proper there is a very small number of our laborers. Mr. Stevens said that, according to the last reports he had, it was a town of 8,000 people. They told me when I was there that there were about six or seven thousand people there. I do not suppose that out of that six or seven or eight thousand there are over one or two or, possibly, three hundred of our employees. There are a lot of fellows coming off the work that have been discharged or quit, and they drift in there. There is a sort of a floating population of that kind.

Senator SIMMONS. There is no doubt, notwithstanding all that you have done in the way of sanitation, that a good part of the city of Colon is still in a very unsanitary condition, is there?

Mr. SHONTS. Yes; although, notwithstanding the conditions, the statistics are much more favorable than at Panama.

Senator SIMMONS. I understand that that is true.

Mr. SHONTS. It is very flat; of course it is on an island, and the island is probably not over a foot and a half or two feet above the level of the sea. Therefore it is very difficult to put in a system of drainage. I think Mr. Stevens probably told you all that we have done.

Senator HOPKINS. Yes; he did.

Senator SIMMONS. Yes; I do not want to go into that. What I was going to ask you, what I was leading up to, is whether it is not entirely practicable to fill up the swamps around there, to fill and drain them, just as we have the Potomac flats here?

Mr. SHONTS. Do you mean back of Colon?

Senator SIMMONS. Yes.

Mr. SHONTS. Why, it is practicable, but it would take an enormous amount of material and it would cost an enormous amount of money. They are so extended, and we would have to haul all the material from the cut there, as being the most available supply, that it would cost an enormous amount to go into that feature of the work.

Senator MORGAN. You never expect to do it?

Mr. SHONTS. No. The solution which the engineers have figured out, and which we think will make it reasonably healthy, consists in flooding the city twice each way every day with sea water from the main channel, and draining all the surplus water from the graded streets into it, and then having a pumping station to carry the sewage out to sea. We think that will make it reasonably healthy, considering the

fact that in its present condition the statistics show better health conditions than you would think simply from looking at it.

Senator MORGAN. As I understand, both the reports that will be submitted to us very soon provide for getting out into the Bay of Limon by a direct cut, leaving Colon 5 miles off to the side.

Mr. SHONTS. Five miles off to the side. We took that into consideration in determining on our plan for sanitizing it, so as not to put any more money into it than would be necessary to make it reasonably healthy during the time that the canal was being constructed, if this change of location was adopted.

Senator MORGAN. The difference in the health rate between Colon and Panama is a very remarkable thing, is it not?

Mr. SHONTS. Yes. To look at the two places you would think that Colon would be a much unhealthier place; but it is not.

Senator MORGAN. Have you ever considered this proposition—that Colon is healthier than Panama, because it is surrounded by sea water and Panama is surrounded by mud, whenever the tide goes out?

Mr. SHONTS. The tide goes out, leaving the mud there.

Senator MORGAN. When the tide goes out it leaves a mile or two or three miles of mud exposed to the hot sun, and all the vegetation that is swept in from the Pacific Ocean—sometimes rotten fish, shell-fish, and everything of that kind—is exposed there, and that produces a malaria there which is not produced in Colon, because it is surrounded by sea water.

(The committee thereupon went into executive session, at the close of which an adjournment was taken until to-morrow, Wednesday, January 31, 1906, at 2.30 o'clock p. m.)

## ISTHMIAN CANAL

---

COMMITTEE ON INTEROCEANIC CANALS,  
UNITED STATES SENATE,  
*Washington, D. C., January 31, 1906.*

The committee met at 2.30 o'clock, p. m., in executive session.

Present: Senators Millard (chairman), Kittredge, Dryden, Knox, Ankeny, and Morgan.

At the conclusion of the executive session Mr. R. P. Schwerin appeared before the committee and was duly sworn.

The chairman being unable to remain for the session, Senator Kittredge took the chair as acting chairman.

### TESTIMONY OF R. P. SCHWERIN, ESQ., VICE-PRESIDENT AND GENERAL MANAGER OF THE PACIFIC MAIL STEAMSHIP COMPANY.

The ACTING CHAIRMAN. State your name.

Mr. SCHWERIN. R. P. Schwerin.

The ACTING CHAIRMAN. Where do you live?

Mr. SCHWERIN. San Francisco.

The ACTING CHAIRMAN. What is your business?

Mr. SCHWERIN. Steamship operation.

The ACTING CHAIRMAN. How long have you been engaged in that business, and with what company or companies?

Mr. SCHWERIN. I have been vice-president and general manager of the Pacific Mail Steamship Company since 1893; I have been president of the Occidental and Oriental Steamship Company for six years; I have been vice-president and general manager of the San Francisco and Portland Steamship Company for more than a year, and vice-president and general manager of the Portland and Asiatic Steamship Company for a little more than a year.

The ACTING CHAIRMAN. How many years have you had experience in steamship business?

Mr. SCHWERIN. Since 1879.

The ACTING CHAIRMAN. I call your attention to a statement made by Mr. Secretary Taft on the 11th day of January, 1906, and read it to you:

"Now, the Pacific Mail Steamship Company is running even worse steamers than it ran before between Panama and San Francisco. The ports where it seems to make its money are the ports in Central America and Mexico, where it has agents who are really the factors for the coffee plantations and for the other products that are raised in those countries. These agents act as bankers for the planters and advance

them money, and in that way the company retains control of that business—charging. I have no personal knowledge about this, but if they pursue the policy that obtains in the Philippines they get most of the profit out of the crop.

"That is the business that is profitable to the steamship company, so when they get through business to San Francisco they are very slow and leisurely about taking it up. As a result these steamers, of very insufficient tonnage, have left (as Mr. Stevens told me yesterday or the day before) on the last four or five sailings with only a third of a cargo or with only half a cargo, leaving much more than a full cargo on the wharf at La Boca, where the steamers dock. We are therefore getting a glut of business as a result of the inactivity and the lack of desire on the part of the Pacific Mail Steamship Company to do that business, and the question which is presenting itself to us with a good deal of force is, What shall we do about it?"

I will ask you to state what the facts are regarding the situation and conditions at Panama which I have just called your attention to from the testimony of Secretary Taft.

Mr. SCHWERIN. In regard to that first portion that you read in relation to the Pacific Mail holding a certain influence over the coffee planters of Central America, by means of the device of acting as factors, I have to say that the Secretary has been misinformed on that, and he acknowledges that misinformation in a public letter to Congressman Littauer.

Senator DRYDEN. When was that letter published?

Mr. SCHWERIN. It was published in the Washington Post two days ago.

Senator DRYDEN. Since his testimony here?

Mr. SCHWERIN. Yes; since his testimony here. I have a copy of it here.

(The letter referred to is as follows:)

**"TAFT WITHDRAWS HIS PACIFIC MAIL CHARGE.**

"Secretary Taft, in a letter to Representative Littauer, of the House Committee on Military Affairs, yesterday denied a statement he made at a recent hearing that the Pacific Mail Line was doing a banking business in Central America. The letter says:

"In my testimony before the subcommittee on deficiencies of the Appropriation Committee of the House, I made the statement that one of the reasons why another American line could not easily compete with the Pacific Mail Line in the business between Panama and San Francisco and intermediate ports was that the Pacific Mail Company had agents at the Central American and Mexican ports, and did, in a sense, a banking business or a factor business, furnishing capital to coffee and other planters to assist them in doing their business, and that this gave them a good will and a position of advantage which any other line would find great difficulty in wresting from them.

"Though I did not intend to criticise the Pacific Mail for this method of business, it has been so construed in some of the newspapers of the western coast. I now have definite information that I have been misled in respect to the business of the Pacific Mail at Central American and Mexican ports, and that they do not do either a factor or banking business at any of these ports, and never have.

"I am glad to withdraw this erroneous statement, which has been used to the prejudice of the Pacific Mail Line."

Generally, in regard to the balance of what the Secretary says, it appears to us that it is either a malicious statement tending to injure American interests, or else it is information upon which he was as ignorant as he was when he made the statement in regard to our acting as factor on the Central American coast and which he has now withdrawn.

The ACTING CHAIRMAN. What are the facts in regard to the conditions at Panama to which I have called your attention?

Mr. SCHWERIN. We are operating on the Pacific side nine regular steamers on a published itinerary which is approved in connection with the movement of the steamers with the Panama Railroad Company, operating on the Atlantic side. This itinerary has to be submitted to the Mexican Government and approved by them before we are permitted to operate in their ports, and is submitted to the approval of the Governments of Nicaragua, Costa Rico, and Honduras and accepted by them. The schedule is printed. It is rather a complicated schedule, and is drawn up to connect with the Panama Railroad Company's boats which leave New York, and which advertise us as their connections, sailing from Panama. It is absolutely essential that connection should be made at Panama with the Atlantic steamers in order that the passengers and freight and mail should be properly conducted across the Isthmus and delivered to the destination on the west coast.

We have been trying earnestly and with every endeavor on our part to fulfill our obligations to the port of Panama in receiving and delivering the freight as it should be received and delivered to our ports of call, but it has been absolutely impossible to perform this duty in a satisfactory way, and this, I am bound to say, is due either to culpable negligence on the part of the operating officers of the Panama Railroad or to total indifference on their part to their obligations as common carriers on the Isthmus of Panama.

The amount of cargo that has passed over that Isthmus for the last five or six years has run very close to 400,000 tons per annum, and that, over a link about 48 miles long, is quite a heavy tonnage.

Long before the Panama Railroad Company sold their interests to the Government, they had neglected to provide proper facilities, and there were difficulties between us in the days of our mutual contract, because they were very shy in cars and motive power. Really two years prior to the sale to the Government and the time the Government took over this property, the rolling stock and the power had run down to about as low an ebb as they could do the business with. At the time the Government took over this property, the management of the railroad was passed into the hands of the Isthmian Commission, and along about the summer of 1904, while we were still operating with the Panama Railroad Company under our contract, things began to change from a regular, orderly system of handling freight from the Atlantic to the Pacific and from the Pacific to the Atlantic, over what might be called a rail bridge, and this began to give trouble, for, as a matter of fact, the whole route is really a steamship route, with this short railroad link in it.

Along in December the Panama Railroad people cut the wages of their employees at Ancon, working on the La Boca docks. That created trouble there, and the men who had been working on their

cranes—they had large electric cranes there on this pier—quit and left, and our labor generally follows the labor of the Panama Railroad Company. They work their gangs and we work ours. The result of that was that we are to-day, after this trouble is all over, paying more wages than we did before, and so are they. That was the beginning of the congestion of freight at the Isthmus.

Then the statement went forth that the United States Government had purchased this property, and we were clearly given to understand that the United States Government had purchased this property for the purpose of using it to construct the canal, and that all commercial freight must take a secondary place to canal material. General Davis wanted to abolish the handling of commercial cargo entirely across the Isthmus. That was found impossible on account of the obligations which our Government assumed in the purchase of that property.

Senator MORGAN. Will you be kind enough to give a statement of what those obligations were that our Government assumed at that time?

Mr. SCHWERIN. As I understand them, Senator, the obligations were that the Isthmian route had to be kept open, under the Panama Railroad Company's franchise from the Colombian Government, as a highway for traffic.

Senator MORGAN. Was that an obligation entered into with the Panama Railroad Company or with the Panama Canal Company?

Mr. SCHWERIN. The Panama Canal Commission purchased the railroad company, and with it, as I understood, all their obligations—all the obligations under which the railroad company's franchise had originally been granted.

Senator MORGAN. Is there any paper in which these obligations are stated or expressed?

Mr. SCHWERIN. I have never seen it, sir. That has been my understanding.

Senator MORGAN. Have you ever heard of a contract with the Government of the United States by which the Government assumes obligations in regard to the transmission of freight across the Isthmus by rail?

Mr. SCHWERIN. No, sir; but I have understood the obligations by which the franchise of the Panama Railroad was granted to New York gentlemen obligated that railroad to be kept open as a means of communication between the Atlantic and the Pacific.

Senator MORGAN. I am not aware of any contract between the Government and the Panama Canal Company, which owns the railroad and from whom we bought the stock, that they would do any particular thing with that property after they got it.

Senator DRYDEN. Do you mean that that was an obligation in their original charter?

Mr. SCHWERIN. Yes, sir.

Senator DRYDEN. And your contention is that the Government, in taking over that property, assumed the obligation which the private corporation was under?

Mr. SCHWERIN. Yes, sir.

Senator KNOX. The Government only took the stock. There has been no change in the corporate existence. You mean that it was a common carrier and had to continue to be a common carrier?

Mr. SCHWERIN. Yes; no matter who held the ownership.

Senator KNOX. No matter who owned the stock?

Mr. SCHWERIN. Yes, sir; no matter who owned the stock, it had to carry out its obligations under its original charter.

Senator KNOX. That is what I understood you to mean. Your original expression was a little unfortunate, I think, about its being an obligation between the United States and the Panama Canal Company. You did not exactly mean that.

Mr. SCHWERIN. I mean in the broad sense that the United States now being a stockholder and in control of the property would be the owner in exactly the same way as a certain railroad operating a subsidiary company would be spoken of as the owner of that company.

Senator MORGAN. Under that theory the United States Government would be bound to carry out this traffic arrangement, would it not, between New York and San Francisco, for instance—the traffic arrangement with the Pacific Mail Company?

Mr. SCHWERIN. The Pacific Mail Company has no traffic arrangement there.

Senator MORGAN. It has had?

Mr. SCHWERIN. Yes; but it has not now.

Senator MORGAN. When did it cease?

Mr. SCHWERIN. Last July.

Senator MORGAN. Oh!

Mr. SCHWERIN. By notification on the part of the United States Government and instructions to the officers of the Panama Railroad Company that the contract would cease under six months' notice. That notice was given the 1st of January last year, and it ceased in July of this year.

Senator MORGAN. That obligation has been in existence for many years, has it not?

Mr. SCHWERIN. Which obligation?

Senator MORGAN. The contract between the Pacific Mail and the railroad company.

Mr. SCHWERIN. Well, during my time there were two contracts made.

Senator MORGAN. Yes; one was a modification of the other?

Mr. SCHWERIN. No, sir. There were two contracts made. And then we all went it alone for a while, and afterwards the Panama Railroad wanted to make another contract, and that is the contract which has now lapsed by notification.

Senator MORGAN. That contract was in force at the time the Government of the United States took over the railway property from the Panama Canal Company?

Mr. SCHWERIN. Yes, sir.

Senator MORGAN. Why was not that an obligation that it should continue?

Mr. SCHWERIN. Because there was a clause in the contract that if the Panama Railroad Company sold that property to the United States Government, they could cancel the contract under six months' notice; and the Government, through the Secretary of War, instructed the directors of the Panama Railroad Company to serve that notice.

Senator MORGAN. It was, then, in virtue of that provision that the contract was terminated?

Mr. SCHWERIN. Yes, sir.

The ACTING CHAIRMAN. You may continue, Mr. Schwerin.



Mr. SCHWERIN. The notice had gone out, and we were made very clearly to understand that the Government having taken this property for the purpose of building the canal, or assisting in the building of the canal, all commercial freight would be a secondary consideration.

Senator MORGAN. How was that understanding expressed, and by whom?

Mr. SCHWERIN. By Mr. Wallace and Admiral Walker to myself personally; by Mr. Wallace to the people on the Isthmus and in correspondence, and by Mr. Shonts to the agents on the Isthmus and to myself.

Senator MORGAN. Was there any signed agreement to that effect?

Mr. SCHWERIN. No, sir; it was a notice to us. They were the owners and operators of the property, and Secretary Taft told me that.

The result of that was that the Government freight had a prior right on all steamers out of New York; it had prior right in the handling of the steamer at Colon, and the movement of freight out on the line. Commercial freight was put on the dock and handled as the opportunity afforded. This meant a delay in the freight at Colon passing over to our steamers at Ancon.

I would like to explain here the difficulties under which we operated in this bridge. At Colon there is an accumulation of freight not only from New York, but from Europe, which passes over to us operating to the north and to the South American companies operating to the south. We get notice of the arrival of this freight at Colon and our agent at Ancon gives notice to the agent of the Panama Railroad Company of freight that he wants and when he wants it, according to the destination of the ship that may be on the berth loading at that time. And the custom has always been that the Panama Railroad Company would send that freight as we desired it, giving us the San Francisco freight first, as that is the last out of the ship in San Francisco, and so on down the different ports of call on the coast, so that the freight for the first port of call on the north-bound trip would be the last freight into the ship.

It is also a very important matter, as all this freight is foreign freight, and the laws of Mexico and Central America are very rigid as to custom-house requirements, that the bills of lading and the manifests and their accountable receipts should actually cover the freight that moves under those papers. In the desire of the operating officials that had charge of this property to get the canal material forward, it seemed to be impossible to do anything with the commercial freight except to dump it on their terminals, and they dumped it there and piled it to the rafters, without any record of marks or numbers, without any record of bills of lading, or the manifests, or the ship by which it arrived at Panama.

The ACTING CHAIRMAN. You are speaking now of the warehouse at Panama, or at Colon?

Mr. SCHWERIN. At Colon, I should have said.

The result was that as our agent ordered his freight over to load the ships it was impossible for the Panama Railroad people to segregate the freight that was required for that particular loading. They would give us what they could give us—what they could get out—and the balance would lie there. This accumulation went on until it got, as Mr. Stevens testified, I believe, before you gentlemen or before one of these committees up here, so that when he went there he found an

enormous quantity of freight on the wharf at Colon, piled to the rafters. He made the statement himself, which our agents have advised me of for months.

Not only was this difficulty encountered there, but it got worse in New York. That is to say, a steamer was loading on the berth and the New York agent had engaged freight for that steamer and a rush order would come for canal material, and a certain amount of the commercial freight that was to go into the ship was cut out, and the space filled with canal material, and the ship would go forward to Colon, and we would get the ship's papers, and there would be no notice whatever of the amount of tonnage cut out of the ship in New York. We would order the freight forward, and when we would get it we would find that we did not have it all. And when we would try to make up our papers, we were short shipped. So that in one port alone I have correspondence from that government to the effect that, I think it was, 50 per cent of some 5,400 packages received in that port during a period of six months were short-shipped packages; that is to say, just half of what they had received was coming under short-shipped papers.

I think it is very evident that if a man is shipping freight and he expects to get his entire consignment—for instance, of machinery—and a part of the consignment comes stringing along in short shift papers he can not do anything with that portion of it. If he gets only a portion of his consignment, he does not know how to check his invoices, because the bills of lading and the invoices will not check up. If he is shipping a large quantity of material, like bar-iron or steel, with a common mark, and it is coming forward without any identification of the original shipment so that it can be tallied with the original bill of lading, it is absolutely impossible for him to identify the freight at destination.

Senator DRYDEN. Was it the result of this confusion that your vessels went only partially loaded?

Mr. SCHWERIN. I will come to that. The result of this confusion was the delay in sorting this freight, the difficulty of getting it across the Isthmus, on account of the rolling stock being occupied by canal material, some of it running sixty or seventy to ninety days, strung out all along the Isthmus, that when this freight reached Panama we found that it was all mixed up there again. That is to say, cars would come over with freight destined for San Jose and Guatemala, and we would open that and find that there were two or three packages of Guatemalan freight and the rest of that was mixed freight for ports all along the coast. In some cases we found where the freight was destined for South American ports not belonging to our line at all. In one case they switched 7 cars on the dock to us for *La Libertad* freight. Out of the 7 cars we got only 14 packages of *La Libertad* freight. That means that those cars had to be switched out again, to try to find the proper cars. Meanwhile, our lay days at Panama were going by.

In this schedule, giving the dates of connection with the Atlantic carriers, we provide from nine to eleven lay days there for the ship to lie to unload and get out. That is ample time, not only for discharging and loading, but ample time to give us, at the terminal point, an opportunity to make up any time that might be lost in this long run of 3,500 miles, stopping at 11 or 12 ports on the way. Instead of the Panama Railroad people helping us to get the freight on the ships, our ships, during the year 1905, had one hundred and thirty-seven

days, and since last June, in addition to the lay days (from nine to eleven days), were one hundred and eleven days lying idle in the port of Ancon, waiting for cargo, or waiting to be discharged, or waiting for coal, which the Panama Railroad was under contract to give us.

The round voyage between San Francisco and Panama is fifty-five days. So that, practically, we lost the entire earning capacity of two round voyages, and lost the opportunity to carry the freight for two full round voyages, through the inability and inefficiency of the operating officers of the Panama Railroad Company. And I say that because, in times gone by, the railroad officials were able to operate that properly and able to discharge there on time. These are absolute matters of record, gentlemen, which I have here, and which I shall be very glad to turn over to the committee.

I should like very much to be permitted to read a letter of one of our captains, who has been for many years running on that coast. This letter was written January 16, 1906, by Capt. W. J. Russell, commander of the *Newport*. I suppose he must have been on that coast fully thirty years. [Reading:]

"I beg to say that the principal reason for the delay in discharging and loading our ships at Ancon, Canal Zone, is the poor quality of labor employed by the Panama Railroad Company. All labor employed by the Panama Railroad Company at La Boca are contract laborers from Jamaica and Fortune Island. These negroes are under six months' contract, and in my opinion are the poorest and laziest laborers in the world. The greatest delay in the work is caused from the condition in which cars are loaded and sent over the road. For example, the stevedore on the dock will order a switch to be made at 1 p. m. with cargo for three or, perhaps, four destinations. When the car doors are opened the stevedore finds that they contain cargo for entirely different destinations to what he ordered, or perhaps just a few packages of destinations wanted will be in each car. The consequences of this will be that the entire car will have to be unloaded just to get at these few packages.

"In the meantime while this is going on, the ship's employees, perhaps 4 gangs of men, 15 to a gang, are sitting down in the ship's hold waiting for cargo. At other times, when a train of cars in such condition as I have mentioned gets on the dock, it becomes necessary to run them out and reswitch, in which case a great deal of time is lost. To the interested observer, in regard to handling cargo on the Isthmus, the chief fault seems to lie, to a great extent, in the lack of system. Everything seems to be mixed up. I was in the Central American service during all the busy years of the French canal, and I never saw any such congestion as prevails at present or since the United States Government took charge. The French took hold at once and equipped the road with plenty of rolling stock, and, although we had five steamers sailing every month, there was very little delay in their being received and dispatched on schedule time. At the same time large cargoes of canal material were arriving at each side of the Isthmus and was being promptly handled, and at that time there was only one dock on the Panama side which merchandise passed over, so it shows that there must be something very radically wrong in the present management. Even the small amount of coal that we received last voyage—only 200 tons—the last of it did not get alongside until the day before sailing, and we had ten days in port, which is a proof that there is

something very slack in that department of the management of the railroad affairs."

The ACTING CHAIRMAN. If I may interrupt you here, what are the conditions to-day as compared with those that you have stated and as indicated in the letter that you have just read?

Mr. SCHWERIN. Captain Russel just came up from the Isthmus when he wrote that letter. The letter is dated January 6, 1906—this January.

The ACTING CHAIRMAN. Have you any later word regarding conditions at Panama or on the Isthmus?

Mr. SCHWERIN. Here is a cable received from the Isthmus, dated Panama, January 26, 1906:

"PANAMA, January 26, 1906.

"SCHWERIN, *San Francisco*:

"Steamships *City of Para* and *Hounslow*. Will be some delay; P. R. R. Co. can not supply coal. Part of the cargo aboard *Hounslow*, *Corinto*, *Salvador*. Steamship *Aztec* half discharged.

"PEARNE.

"Memorandum: *Para* scheduled to sail from Ancon January 23. *Aztec* arrived January 22."

I asked him then:

"WASHINGTON, D. C., January 29, 1906.

"PEARNE, *Panama*:

"Why can not *Para* get coal?

"SCHWERIN."

Mr. Pearne cabled me on the 29th:

"PANAMA, January 29, 1906.

"SCHWERIN, *Washington*:

"*Hounslow*, 41,250. Finish discharging to-day. Have not sufficient coal. Meanwhile have not commenced loading. Will sail on 1st.

"*Aztec*, 45,000. Only 12,000 remains. Will sail on 2d.

"*Para*. Will sail on 29th.

"*San Juan* arrived January 24. Commence discharging January 30.

"PEARNE."

Six days, and not a package touched.

The ACTING CHAIRMAN. Why was that delay?

Mr. SCHWERIN. They were unable to handle them. I can not tell you any more. That has been the same story, right straight along.

Senator KNOX. When did you get that cable?

Mr. SCHWERIN. This cable is dated Panama, January 29, 1906.

Senator KNOX. What do you mean by commencing to discharge January 30? That is a surmise, is it not?

Mr. SCHWERIN (reading). "Commence discharging January 30. I suppose it is.

Senator KNOX. That was only yesterday. They could hardly tell you on the 29th that they would commence discharging on the 30th.

Mr. SCHWERIN. It may be the 29th or it may be a bull in the telegram.

The ACTING CHAIRMAN. You may proceed, Mr. Schwerin.

Mr. SCHWERIN. We would get our ships into San Francisco late, and we would work them day and night to get them out. Our sched-

ule has a steamer departing every Saturday. We have gotten steamers in there on Tuesday and Wednesday and gotten them out on Saturday at noon in order to try to keep the schedule up.

This report here, showing the lay days of steamers on the Pacific Mail at Ancon, 1905, shows that although we have been promised better service right along it seems to steadily grow worse. As I said, while the first six months of the past year there were only 26 lay days, the last six months, in addition to the regular lay days, there were 111.

THE ACTING CHAIRMAN. You mean the first six months beginning January 1, 1905?

MR. SCHWERIN. Beginning January 1, 1905.

THE ACTING CHAIRMAN. And the first six months, how many lay days were there?

MR. SCHWERIN. Twenty-six.

THE ACTING CHAIRMAN. And from July 1, 1905, to January 1, 1906, how many?

MR. SCHWERIN. Closing with the last departure, December 16, there were 111. For instance, the *Acapulco*, in November, laid there six days; the *Aztec*, in July, laid there twelve days, and in October twelve days; the *Pekin*, in August, twelve days, and in November eight days; the *Sydney* laid there for four days; the *Para* for nine days; the *Panama* for four days; the *Peru*, in July, lay there twelve days, etc.

THE ACTING CHAIRMAN. From what reports are you reading?

MR. SCHWERIN. These are statements that are made up from the commander's report of the voyage.

THE ACTING CHAIRMAN. Where were these boats during the delay?

MR. SCHWERIN. They were lying in the harbor of Panama.

THE ACTING CHAIRMAN. And waiting for what?

MR. SCHWERIN. Waiting to be discharged or to get a cargo.

In reply to the question if any of our ships left Panama without cargo, I want to say that it would be a very silly proposition for a steamship line operating out of a port to leave a port with cargo on shore, as long as they were in the business of handling cargo and they wanted a full ship, because it is a fundamental principle of any ocean carrier to get the bulk of the cargo that you can get into the ship.

The only occasion on which we would have to leave Panama without cargo would be where it was absolutely impossible for us to get it. An illustration of that would be this: Suppose a ship arrived in Ancon and was discharged and began to load, and she was lying there upon this loading, and a second ship, following her, arrives. Still the first ship is not loaded. Would it be proper for that ship to go to sea and leave the balance of the cargo for the succeeding ship to take, or would it be proper for the ship to remain there until her full cargo was received, delaying the discharge of the second ship? And meanwhile all along that coast—the 3,500 miles—passengers are waiting under the terms of this printed schedule for the steamer to come and take them away, mails are expected to be carried away, and people are expecting to deliver their cargo which they have received advices should arrive by a certain ship.

To carry that on you could keep your ships and each succeeding ship lying there until your entire fleet was tied up in one of the terminal ports. It is absolutely essential that the railroad company should use every possible endeavor to get the commercial freight across the Isth-

mus, to load the ship and dispatch her on schedule time, and that is the only way that that congestion at the Isthmus can be relieved.

Senator KNOX. Let me ask you this: Does your contract with the governments to which you carry mail and freights require you to leave on the sailing dates named in your schedule?

Mr. SCHWERIN. The Mexican Government does; yes. This schedule has to be approved by the Mexican Government, and unless the ships arrive and depart upon these dates we suffer penalties.

Senator KNOX. Are there no exceptions to that rule, where you are unable to obtain a cargo or where you are detained by circumstances over which you have no control? Would not that excuse you?

Mr. SCHWERIN. We have made those excuses to the Mexican Government, but we are not advised as to what action they will take. We have used that excuse to endeavor to escape the penalties.

Senator KNOX. But I understand the fact is that your engagement with those governments that control the ports north of Panama requires you to sail on the dates fixed in your schedule?

Mr. SCHWERIN. Yes, sir; and it is the only way that that line can be operated; the only possible way. Previous to the régime of the present operating officials, when a ship arrived in Colon the freight was taken out of the ship and was distributed to a string of cars, and each one of those cars was marked for the destination. For instance, as the ships were discharged, the car was marked *La Libertad*, *Acajutla*, or *San Jose*, and as the freight came out the callers would call out the freight and it would be put right into that car.

Senator KNOX. I want to ask you this additional question. Does that obligation require you, and is it your practice when the day for sailing according to your schedule arrives, to put out if you are only partially loaded, and if there is freight on the dock that you can get by remaining a day or two or three days longer?

Mr. SCHWERIN. Absolutely no.

Senator KNOX. I do not understand the answer. Do you mean absolutely no—that you do not wait, or that you do wait?

Mr. SCHWERIN. We do wait. That is what causes these lay days.

Senator KNOX. Then, you do not observe your contract to sail on your sailing dates?

Mr. SCHWERIN. We have thrown everything aside to assist the Panama Railroad Company in the operation of the Isthmus.

Senator KNOX. That is all.

Mr. SCHWERIN. I might add here that our contract obligations with these Central American countries call for so many calls a month, and, of course, the continued interruption of the schedule there may make conditions so that we make four calls one month and two the other, where we should have had three calls each month.

The ACTING CHAIRMAN. You spoke of the carrying of the mails. Do you carry mail for the United States?

Mr. SCHWERIN. Yes, sir; we carry mails up the coast and down the coast. We carry also mails for the Central American governments—interport business.

The ACTING CHAIRMAN. Under contract?

Mr. SCHWERIN. No, sir; except the interport business of the Central American governments.

The ACTING CHAIRMAN. What compensation do you receive for that service?

Mr. SCHWERIN. The United States Government paid us last year for all the mails we handled on that coast \$2,880.35. That is the total amount that we got from the United States Government. I believe that during that time the Panama Railroad got between \$150,000 and \$200,000 compensation from the United States Government.

The Panama Railroad Company have their obligations of the mails, which they are paid for; they have their obligations as a common carrier just as much as we have, for which they are paid; they have a service of 1,900 miles from New York to Ancon and 48 miles to La Boca, against our 3,500 miles. They have no ports of call between New York and Ancon. It is dead straight business. On some of our schedules we have 11 ports of call and on some of them we have 12 ports of call; and yet the divisions are 50 per cent to each line on the freight—that is, on the haul from New York to San Francisco on \$11 freight, which is about the average, they get \$5.50 and we get \$5.50—and they charge us 80 cents a ton for wharfage at La Boca and 10 cents a ton for cramage, making 90 cents out of our proportion, so that with a service very much shorter than ours and very much less arduous than ours they get a greater net profit. They get coal in New York for about \$3 a ton, and we pay the Panama Railroad between \$7 and \$8—\$7.50; and it costs us \$8 a ton in the ship.

We have sacrificed our interests, we have stood up under the abuse of the Central American people and the San Francisco merchants and papers, we have kept out of the papers, we have not said a word, but have taken our medicine and tried to help out under the ideas and promises that the conditions would be improved very speedily, and steadily it seems to grow worse, until Mr. Bierd tells our agent there that he is a stone man or something like that and that he does not propose to be moved.

The ACTING CHAIRMAN. Who is Mr. Bierd?

Mr. SCHWERIN. The superintendent of the Panama Railroad Company, sir.

The ACTING CHAIRMAN. And who is your agent?

Mr. SCHWERIN. Mr. Pearne. Mr. Pearne tried to get satisfaction from Mr. Hunt—

The ACTING CHAIRMAN. Who is Mr. Hunt?

Mr. SCHWERIN. He is the terminal agent of the Panama Railroad Company at Ancon. And he can not get any satisfaction. Then he goes to Mr. Bierd, and Mr. Bierd is displeased because he did not take it up with Mr. Hunt. Then he explains to Mr. Bierd why he is forced to take it up with him, and that is not satisfactory.

In one case, where Mr. Walker was on the Isthmus—the traffic manager of the Panama Railroad Company—our agent found out that there was a large lot of lumber coming to Panama, and they proposed to take the terminal at Panama and discharge the lumber shipping at this terminal. He went to Mr. Walker and explained that the *Aztec* and the *City of Peking*, ships that aggregate about 8,500 tons of space, were to be there about the same time, when they were cleaning the Isthmus. And Mr. Walker and Mr. Bierd and Mr. Hunt all agreed that these two ships should have the right of way, to get the stuff away from the Isthmus. They were making strenuous efforts to clean up the Isthmus, and we were cooperating with them. That was the old accumulation that was down there. When the lumber ship appeared on the scene she was taken to the dock, and we were left in the bay. Mr.

Pearne protested, but could get no satisfaction, and he finally went to Mr. Stevens. Mr. Stevens looked into the thing, and as Mr. Stevens is a pretty cool, keen business man he gave orders that the ships should have the dock, and so the ships did get the dock; and while it is true that they were loaded and discharged they were there an interminable number of days.

Now, that we can not get our cargo out is bad enough, but when the Panama Railroad people themselves get their own tonnage there and can not get it out, and they will not help us to get ours out at that time, there is something queer in the operation.

I have here a statement of these lumber ships which bothered us in discharge at Panama, covering a period of arrival at Ancon from August 1 to November 30.

The *Como* arrived there on September 7 and she sailed October 24. She had 4,250,890 feet of lumber on board. She had nineteen days demurrage, at \$265 a day, or \$5,035.

THE ACTING CHAIRMAN. Do I understand that that was the ship in which Government lumber was transported?

MR. SCHWERIN. Yes, sir; it was delivered at Ancon under contract, and we were trying to get our ships handled and discharged at that time, when this ship was in there, and the Government paid that ship \$5,035.

THE ACTING CHAIRMAN. Who paid that sum?

MR. SCHWERIN. The United States Government must have paid it. I consider the Panama—

Senator KNOX. The railroad paid it?

MR. SCHWERIN. I consider, as a citizen of the United States, that the Government is responsible for all the conduct of affairs so far as the Panama Railroad is concerned—

Senator KNOX. Without reference to your view of it, you mean that the railroad paid that, do you not?

MR. SCHWERIN. No, sir; I understand that that was contracted under bids to the Isthmian Canal Commission.

Senator KNOX. Who paid the demurrage?

MR. SCHWERIN. Whoever contracted for it, whether it was the railroad or the Isthmian Commission—one or the other. If the Canal Commission contracted for it they paid the demurrage. If the contract was in the name of the railroad they paid it.

THE ACTING CHAIRMAN. Do you know that the demurrage was paid?

MR. SCHWERIN. I know it was agreed to be paid. I doubt very much whether the money has been paid yet, because I have heard that lumber delivered last summer was not paid for in December.

The *Wyneric* had 3,267,548 feet of lumber. She had twenty-four days demurrage, and the Commission allowed \$261 a day, or \$4,959. The *Henley* had thirteen days demurrage at \$168, or a total of \$2,184. The *Elleric* had twenty-three days demurrage at \$185, or \$4,255. The *Chiswick* had eight days demurrage at \$165, making \$1,320.

THE ACTING CHAIRMAN. What is the aggregate amount?

MR. SCHWERIN. Here it is: Total demurrage, \$18,617.

Senator DRYDEN. What period did that cover?

MR. SCHWERIN. The first ship arrived in Ancon August 1, and the last ship November 30.

THE ACTING CHAIRMAN. How much lumber was in the cargoes? Have you any means of telling us that?



Mr. SCHWERIN. The totals are here, if they were totaled up, sir. I can have them totaled up, as my secretary is here, if you care to have it done.

The ACTING CHAIRMAN. How much in each ship?

Mr. SCHWERIN. That is all here; yes.

The ACTING CHAIRMAN. I should like to hear that.

Mr. SCHWERIN. It is as follows: The *Elleric*, 215,536 feet of creosoted lumber, 1,170,250 feet of rough lumber, 921,621 feet of piles, making a total of 2,307,407 feet; the *Como*, 4,250,890 feet of dressed lumber; the *Wyneric*, 3,075,626 feet of rough lumber, 191,922 feet of creosoted lumber, making a total of 3,267,548 feet; the *Henley*, 2,716,000 feet of dressed lumber; the *Elleric*, 2,454,000 feet of rough lumber; the *Chimwick*—I do not know how much she had; the *E. B. Jackson*, 893,087 feet of rough lumber; the *Elwell*, 535,879 feet of redwood, 593,681 feet of Oregon, making a total of 1,129,560 feet; the *Pass of Melfort*, 1,982,512 feet of rough lumber; the *General Fairchild*, 972,373 feet of rough lumber. There was also 2,000,000 feet delivered by the Kosmos Line in the early part of 1905. That is before this freight got there.

The ACTING CHAIRMAN. Before I forget it, I would like to ask you about the contract with the Panama Railway Company which your company has for the the supply of coal.

Mr. SCHWERIN. The Panama Railway Company contracted to supply us with coal at Ancon as we require it.

The ACTING CHAIRMAN. When was that contract made?

Mr. SCHWERIN. We began to buy coal from them shortly after we made the last contract, the last traffic agreement with them.

The ACTING CHAIRMAN. And for what term was the contract?

Mr. SCHWERIN. I do not think there was any particular term stated. It could be canceled under reasonable notice to either side.

The ACTING CHAIRMAN. Is that a binding obligation on the part of the railway company and your company until it is terminated?

Mr. SCHWERIN. Yes, sir.

The ACTING CHAIRMAN. In accordance with its terms?

Mr. SCHWERIN. Yes, sir. They obligated themselves to always have the coal on hand and furnish it promptly to our vessels.

The ACTING CHAIRMAN. In what manner may that contract be terminated?

Mr. SCHWERIN. The Panama Railroad could terminate that contract by serving notice on us that after a certain date they would expect us to supply our own coal; and we would have to import Australian coal.

The ACTING CHAIRMAN. Has any notice of that character been served?

Mr. SCHWERIN. No, sir.

The ACTING CHAIRMAN. How long have you been troubled on account of the failure of the railway company to supply you with coal in accordance with the contract you mention?

Mr. SCHWERIN. Ever since this congestion of freight on the Isthmus the handling of material across the Isthmus has been slower and slower. Our agent serves notice on Mr. Hunt as to the amount of coal that he wants and when he wants it, and he has had occasion to complain that he can not get his ships away because he can not get the coal in the ships for them to sail with. One ship, the *Newport*, had to lie there a whole day after she was loaded because she did not have coal on

board. Mr. Hunt's excuse is that he has to take it up to higher quarters and then can not get the coal over, and that he has done all that he could do. That is one of the cases again where, when Mr. Pearne complains to the superintendent, he is referred back to the agent.

The ACTING CHAIRMAN. The statement was made by Mr. Stevens, perhaps, or by some witness before the committee, that your ships sailed away from Panama leaving quantities of freight in the warehouse at La Boca that ought to have gone upon the ships so sailing.

Mr. SCHWERIN. I sent a letter on to our attorney here, Mr. Chambers, requesting him to lay before Mr. Shonts a complaint of the Central American people, and ask if he could not find some relief for us, so that our ships could get proper treatment at Panama. And Mr. Chambers received a letter from Mr. Shonts, which he forwarded to me, in which Mr. Shonts stated that the congestion on the Isthmus was cleared up. That was about the last of November, and we had no intimation that there was any further difficulty on the Isthmus until I received cable advices, one from Mr. Bierd at the Isthmus, and a telegram from Mr. Shonts, and a telegram from Mr. Walker, to the effect that there was an enormous quantity of freight at the Isthmus, and asking that help be furnished to get it out. I immediately took steps to accommodate them on that.

We having two large freighters on the coast, I sent instructions down to Central America to hustle the *Aztec* down to Panama, and an arrangement was made to get the vessels down there just as quick as we could; and as a matter of fact the *Aztec* did arrive there, I believe, on the 22d, and the *Hounslow* on the 19th. These are the vessels we are talking about that came in with coffee to take the freight out. As a matter of fact, the question of 5,000 or 6,000 tons of freight on the Isthmus is a mere bagatelle, anyway. We have had, in connection with our transport steamers, as high as 50,000 or 60,000 tons of freight at the terminus in the railroad yard in San Francisco, and we would take it up in twelve or fourteen days and think nothing of it. The steamers were coming to get the freight while the railroad was accumulating the freight ready to meet the steamer. If we had to let the steamer come in empty and guess where we would get the freight the demurrage on the ships would eat up the profits.

You could not run a steamship line on any such basis as that. The fact claimed that on all occasions we should have a steamer ready to take the freight that happens to be on the Isthmus is unimportant, because one steamer might be at Ancon when there was nothing coming in at the Atlantic port; then there might be a Hamburg-American packet steamer, a Royal Mail, a *La Veloce*, and a Leyland Line steamer all come tumbling in with a mass of freight that would tax the capacity of any steamship organization to have steamers waiting there (Ancon) while any such congestion of freight might accidentally develop. As a common carrier, it is proper that the railroad company should have had facilities there to handle these conditions and to assort the freight and store the freight for the steamship company to take it away. It is also essential for the steamship company, when a sudden congestion of freight occurs that will delay the tonnage, to attempt to provide extra tonnage to assist the steamers that are regularly scheduled to sail in taking that freight away. We have always done that.

The ACTING CHAIRMAN. Let me ask you. You state that it is proper or essential that the railroad company should do this. Is it its duty?

Mr. SCHWERIN. It is its duty. Why should it not be? It gets the largest revenues of anybody that operates with the Isthmus, and under its obligations as a common carrier, in return for that revenue, it is due to the people whose freight it takes and to whom it issues bills of lading, or to its cocarriers from whom it accepts bills of lading, to maintain its proper obligations.

The ACTING CHAIRMAN. What I am trying to ascertain is whether it is your duty—that is, the duty of your company or the duty of the railway company—to take care of the freight conditions you have described.

Mr. SCHWERIN. Well, all my experience in connection with steamship connection and rail connection is that the railway company is expected to store their freight and to complete a bill of lading before the steamship company accepts it.

The ACTING CHAIRMAN. Then it is the duty of the railroad?

Mr. SCHWERIN. Yes, sir; it is the duty of the railroad to give it to the ship in that condition, absolutely. Even though we had only one port of call, and that was San Francisco, it would be the obligation of the railroad company there, as is customary all over the world, to complete shipments according to the accountable receipts of that ship and deliver that freight to us under those actual conditions.

The ACTING CHAIRMAN. Do all of your ships plying between Panama and San Francisco stop at the same ports along the coast?

Mr. SCHWERIN. No, sir; they do not. The schedule provides that certain ships shall stop at certain ports. It would be absolutely impossible for all our ships to stop at all the ports. It was the desire of the Panama Railroad people, when we were operating for commercial business alone, as well as of ourselves, not to exceed thirty-five days between New York and San Francisco in the competition for cargo. You can understand that if you are too long on the route, either east bound or west bound, it is a detriment to your line.

We were just as keen competitors for what business we could get by that route as the Cape Horn or any trans-Atlantic route. If we lengthened our time of passage out to forty-five or fifty days it meant that shippers could afford to send their freight around the Horn and still get it with equal dispatch as if it had been sent by our line. The result was that we tried to keep our passage always within thirty-six days, and that is the schedule. If we were to stop at every one of the ports we could not possibly perform the schedule. At some of the ports we would go there for a ton of freight, or a minimum shipment of \$5 bill of lading. A peculiar illustration of that is that the Mexican consul at Panama required \$25 gold for the signing of a Mexican manifest. We got \$2 a ton on freight to the Mexican port, and it would take 12½ tons to make up the cost of signing that manifest, outside of the cost of stevedoring and handling between Ancon and that Mexican port.

The trouble is, in my opinion, that Mr. Shonts is entirely too busy to bother with this condition. Mr. Stevens is entirely too busy to bother with this condition, and Mr. Bierd, the superintendent of the railroad company, has got all he can swing in trying to handle the canal material, and the subordinate officials are left hanging in the air.

Senator DRYDEN. Has there been a general change of the management of the road? I do not mean the superiors, the Commission, etc., but the practical operators of the road.

Mr. SCHWERIN. Well, Mr. Prescott went out—he was the superin

tendent, and I think Mr. Stevens testified that he said the job was too big for him, and he was quickly relieved—and Mr. Bierd, the acting superintendent, went in; and I do not see that we are getting very much more relief under Mr. Bierd than we were under Mr. Prescott.

Senator DRYDEN. But I had reference to the men who were there when the road was operated before it came into the possession of the Government.

Mr. SCHWERIN. Yes, sir; practically an entire change has taken place, with the exception that Mr. Hunt, who was the man down on the dock, under Captain Bierce, has been made terminal agent at Panama.

Senator DRYDEN. Do you know whether these men who took these positions were experienced railroad men before they took them?

Mr. SCHWERIN. I do not know anything about that, sir. Now, in the period as to which I believe Mr. Shonts and the Secretary gave testimony in relation to the glut of tonnage at Ancon, which was from May to September, 1905, it may be interesting to note that in May there was 7,824 tons brought to Colon, and we took away from Ancon 9,561 tons. In June there was brought to Colon 8,389 tons, and we took away 7,330 tons. In July there was brought to Colon 5,986 tons, and we took away 8,134 tons. In August there was 6,484 tons brought to Colon, and we took away 6,666 tons. That was in the height of the bubonic plague period. Now during that period there was not anything that we did not do to help out the Panama Railroad in the situation on the Isthmus. We got our State Department to appeal to the Central American governments to let our ships go on. We got our ministers throughout Central America to work; the entire time tending to relieve the Isthmus of any congestion that might take place there.

Senator DRYDEN. You claim that any fault or blame for this congestion does not lie at your door?

Mr. SCHWERIN. Yes, sir; and if our ships are hung up until they lose their schedules so that we can not run on them, we can not manufacture a ship to perform that schedule, which requires nine steamers to do it. All we can do is to get an extra steamer in there from time to time as quickly as we possibly can to help the situation.

Senator ANKENY. May I ask a question?

The ACTING CHAIRMAN. Surely.

Senator ANKENY. That contract you had with the railroad company for coal is still in existence?

Mr. SCHWERIN. Yes, sir.

Senator ANKENY. What coal do they furnish?

Mr. SCHWERIN. They are supposed to furnish us with Pocahontas coal.

Senator ANKENY. That is an eastern coal?

Mr. SCHWERIN. A Norfolk and Western coal.

Senator ANKENY. Where do they get it?

Mr. SCHWERIN. The last contract they had was—I am not familiar with the contracts, but, as I remember, they made a contract with—(Mr. Schwerin paused.)

Senator ANKENY. It is not important.

Mr. SCHWERIN. I think perhaps you know him; he is one of the brothers who are prominent directors in the Santa Fe Company.

Senator KNOX. Berwind?

Mr. SCHWERIN. Berwind Brothers.

Senator ANKENY. And you take it at the mines, do you?

Mr. SCHWERIN. No, sir; we take it and deliver it into our lighters at Ancon. Their contractor delivers the coal to them, as I understand it, at Panama; and then they transport it across the Isthmus and dump it into our lighters.

The ACTING CHAIRMAN. You mean Colon?

Mr. SCHWERIN. At Ancon. They have a delivery to them in vessels at Colon.

The ACTING CHAIRMAN. Yes.

Mr. SCHWERIN. Then they transport it across the Isthmus and deliver it in our lighters at Ancon.

Senator ANKENY. What do you pay them for that coal under that contract?

Mr. SCHWERIN. We pay \$7.50 now.

Senator ANKENY. Thank you. I only asked that for information.

Mr. SCHWERIN. Yes, sir; we paid them \$8, and then the price of coal was reduced, and then they reduced the price to \$7.50.

The ACTING CHAIRMAN. How does the commercial business during the period of the bubonic plague compare with the commercial business at other times?

Mr. SCHWERIN. It is impossible to stop the tonnage moving. For instance, there might be ships afloat from Europe bound for the Isthmus and from San Francisco and New York, and if there is a case of bubonic plague reported that tonnage has all got to arrive there before any more tonnage can be stopped. You can not stop that tonnage, but you can stop any subsequent tonnage after the notice has been given out that there is bubonic plague at the Isthmus.

The ACTING CHAIRMAN. And in fact the commercial business moves steadily throughout that plague period?

Mr. SCHWERIN. It would seem so from these statements.

Senator DRYDEN. Have you increased or in any way changed the rates for commercial freight over your line since the Government became the owner of the railroad?

Mr. SCHWERIN. No, sir; we have reduced them.

Senator DRYDEN. You have reduced them?

Mr. SCHWERIN. That is, the Panama Railroad Company practically arbitrarily reduced them. They changed the method of classification of freight from New York to Mexico, and I figured out that if we handled the same amount of tonnage in 1906 that we handled in 1905 it would be a reduction of our earnings of thirty-odd thousand dollars. That was done practically without any consultation or acquiescence on our part to meet, as I understand, the demand of the steel trust.

Then, again, this year, in the coffee contracts for Europe, these European companies were insistent that a rebate of 10 per cent should be paid to the coffee planters, and we fought it. The Panama Railroad Company said that they would not participate in any rebates for the reason that they were a government institution, and it was inimical to government interests. We were placed in the position that if we did not come in and accept the 10 per cent rebate the Hamburg-American Packet Company would send a fleet of steamers out on the west coast of Central America and handle the coffee, and of course the Panama Railroad Company would take it, and we would be shut out of the business. We were forced to accept our pro rata of the 10 per cent commission. That will cost us in the neighborhood of thirty-odd thousand

dollars. So that these reductions on this year's business will be, I think, altogether between sixty and seventy thousand dollars.

Senator ANKENY. Mr. Chairman, would it be in order to make that freight schedule a part of our record? I would like to have it.

The ACTING CHAIRMAN. It would if it is the desire of any member of the committee.

Senator ANKENY. I would like to have it.

(By direction of the committee the schedule referred to was made part of the record, and the same is as follows:)

*Pacific Mail Steamship Company—Panama line.*

SCHEDULE OF ARRIVALS AND DEPARTURES—1906.

[Subject to change and individual postponement without notice.]

SOUTH BOUND.

	1906.							
	Jan. 6	Jan. 13	Jan. 20	Jan. 27	Feb. 3	Feb. 10	Feb. 17	Feb. 24
Lv. San Francisco .....								
Ar. Mazatlan .....	12	19		Feb. 2	9	16		Mar. 2
" San Blas .....		20				17		
" Manzanillo .....		21		4		18		4
" Acapulco .....	15	23	28	6	12	20	25	6
Lv. Salina Cruz .....		25		8		22		8
" Champerico .....	18	27	Feb. 1		15	24	Mar. 1	
" San Jose de Guatemala .....	20	29	8	11	17	26		11
" Acajutla .....	21	30	4	12	18	27		12
" La Libertad .....	22		5	13	19		5	13
" La Union .....	23		6		20		6	
" Amapala .....	23		6		20		6	
" Corinto .....	24	Feb. 1	7		21	Mar. 1	7	
" San Juan del Sur .....		2		15		2		15
" Puntarenas .....	26		9		23		9	
Ar. Ancon .....	28	5	11	18	25	5	11	18

	1906.							
	Mar. 8	Mar. 10	Mar. 17	Mar. 24	Mar. 31	Apr. 7	Apr. 14	Apr. 21
Lv. San Francisco .....								
Ar. Mazatlan .....	9	16		30	Apr. 6	13		27
" San Blas .....		17				14		
" Manzanillo .....		18		Apr. 1		15		29
" Acapulco .....	12	20	25	3	9	17	22	May 1
Lv. Salina Cruz .....		22		5		19		8
" Champerico .....	15	24	29		12	21	26	
" San Jose de Guatemala .....	17	26	31	8	14	23	28	6
" Acajutla .....	18	27	Apr. 1	9	15	24	29	7
" La Libertad .....	19		2	10	16		30	8
" La Union .....	20		3		17		May 1	
" Amapala .....	20		3		17		1	
" Corinto .....	21	29	4		18	25	2	
" San Juan del Sur .....		30		12		27		10
" Puntarenas .....	23		6		20		4	
Ar. Ancon .....	25	Apr. 2	8	15	22	30	6	18

	1906.							
	Apr. 28	May 5	May 12	May 19	May 26	June 2	June 9	June 16
Lv. San Francisco .....								
Ar. Mazatlan .....	May 4	11	May 12	May 25	June 1			June 22
" San Blas .....		12				8		
" Manzanillo .....		13		27		10		24
" Acapulco .....	7	15	20	29	4	12	17	26
Lv. Salina Cruz .....		17		31		14		28
" Champerico .....	10	19	24		7	16	21	
" San Jose de Guatemala .....	12	21	26	June 8	9	18	23	July 1
" Acajutla .....	13	22	27	4	10	19	24	2
" La Libertad .....	14		28	5	11		25	8
" La Union .....	15		29		12		26	
" Amapala .....	15		29		12		26	
" Corinto .....	16	24	30		13	21	27	
" San Juan del Sur .....		25		7		22		5
" Puntarenas .....	18		June 1		15		29	
Ar. Ancon .....	20	28	3	10	17	25	July 1	8

*Pacific Mail Steamship Company—Panama line—Continued.*

## SCHEDULE OF ARRIVALS AND DEPARTURES—1906—continued.

## SOUTH BOUND—Continued.

1906.								
	June 23	June 30	July 7	July 14	July 21	July 28	Aug. 4	Aug. 11
Lv. San Francisco .....	29	July 6		20	27	Aug. 3		17
Ar. Mazatlan .....		7				4		
" San Blas .....		8		22		5		19
" Manzanillo .....	July 2	10	15	24	30	7	12	21
" Acapulco .....		12		26		9		23
Lv. Salina Cruz .....		14	19		Aug. 2	11	16	
" Champerico .....	5	16	21	29	4	13	18	26
" San Jose de Guatemala ..	7	17	22	30	5	14	19	27
" Acajutla .....	8		23	31	6		20	28
" La Libertad .....	9		24		7		21	
" La Union .....	10		24		7		21	
" Amapala .....	10		25		8	16	22	
" Corinto .....	11	19		Aug. 2		17		30
" San Juan del Sur .....		20						
" Puntarenas .....	13		27		10		24	Sept. 2
Ar. Ancon .....	15	23	29	5	12	20	26	

1906.								
	Aug. 18	Aug. 25	Sept. 1	Sept. 8	Sept. 15	Sept. 22	Sept. 29	Oct. 6
Lv. San Francisco .....	24	31		14	21	28		12
Ar. Mazatlan .....		Sept. 1				29		
" San Blas .....		2		16		30		14
" Manzanillo .....	27	4	9	18	24	Oct. 2	Oct. 7	16
" Acapulco .....		6		20		4		18
Lv. Salina Cruz .....	30	8	13		27	6	11	
" Champerico .....	1	10	15	23	29	8	13	21
" San Jose de Guatemala ..	2	11	16	24	30	9	14	22
" Acajutla .....	3		17	25	Oct. 1		15	23
" La Libertad .....	4		18		2		16	
" La Union .....	5		19		3		17	
" Amapala .....	6	13	18		4		18	
" Corinto .....	7	14	19		5	11	17	
" San Juan del Sur .....			21	27		12		25
" Puntarenas .....	7		21		6		19	
Ar. Ancon .....	9	17	23	30	7	15	21	28

1906.							
	Oct. 13	Oct. 20	Oct. 27	Nov. 3	Nov. 10	Nov. 17	
Lv. San Francisco .....	19	26		9	16	23	
Ar. Mazatlan .....		27				24	
" San Blas .....		28		11		25	
" Manzanillo .....	22	30	Nov. 4	13	19	27	
" Acapulco .....		Nov. 1		15		29	
Lv. Salina Cruz .....	25	3	8		22	Dec. 1	
" Champerico .....	27	5	10	18	24	31	
" San Jose de Guatemala ..	28	6	11	19	25		4
" Acajutla .....	29		12	20	26		
" La Libertad .....	30		13		27		
" La Union .....	31		14		28		6
" Amapala .....		8					7
" Corinto .....		9		22			
" San Juan del Sur .....	Nov. 2		16		30		
" Puntarenas .....	4	12	18	25	Dec. 2		10
Ar. Ancon .....							

*Pacific Mail Steamship Company—Panama line—Continued.*

## SCHEDULE OF ARRIVALS AND DEPARTURES—1906—continued.

## SOUTH BOUND—Continued.

	1906.					
	Nov. 24	Dec. 1	Dec. 8	Dec. 15	Dec. 22	Dec. 29
Lv. San Francisco.....						
Ar. Mazatlan .....		7	14	21		1907. Jan. 4
" San Blas .....				22		
" Manzanillo .....		9		23		6
" Acapulco .....	Dec. 2	11	17	25	30	8
Lv. Salina Cruz .....		13		27		10
" Champerico .....	6		20	29	1907. Jan. 3	
" San Jose de Guatemala .....	8	16	22	31	5	13
" Acajutla .....	9	17	23	1907. Jan. 1	6	14
" La Libertad .....	10	18	24		7	15
" La Union .....	11		25		8	
" Amapala .....	11		25		8	
" Corinto .....	12		26	3	9	
" San Juan del Sur .....		20		4		17
" Puntarenas .....	14		28		11	
Ar. Ancon .....	16	23	30	7	13	20

## NORTH BOUND.

	1906.							
	Feb. 6	Feb. 13	Feb. 20	Feb. 27	Mar. 6	Mar. 13	Mar. 20	Mar. 27
Lv. Ancon .....								
" Puntarenas .....	15	15	22	Mar. 1		15	22	29
" San Juan del Sur .....	9		23		9		23	
" Corinto .....	10	17		3	10	17		31
" Amapala .....		18		4		18		Apr. 1
" La Union .....		18		4		18		1
" La Libertad .....	12	19		5	12	19		2
" Acajutla .....	13	20	26	6	13	20	26	3
" San Jose de Guatemala .....	15	22	27	8	15	22	27	5
" Champerico .....	16	23			16	23		
" Salina Cruz .....	18		Mar. 2		18		30	
Ar. Acapulco .....	20	26	4	12	20	26	Apr. 1	9
" Manzanillo .....	22		6		22		3	
" San Blas .....	23	28	7	14	23	28	4	11
" Mazatlan .....		Mar. 1	8	15		29	5	12
" San Francisco .....	Mar. 1	7	14	21	29	Apr. 4	11	18

	1906.							
	Apr. 8	Apr. 10	Apr. 17	Apr. 24	May 1	May 8	May 15	May 22
Lv. Ancon .....								
" Puntarenas .....		12	19	26		10	17	24
" San Juan del Sur .....	6		20		4		18	
" Corinto .....	7	14		28	5	12		26
" Amapala .....		15		29		13		27
" La Union .....		15		29		13		27
" La Libertad .....	9	16		30	7	14		28
" Acajutla .....	10	17	23	May 1	8	15	21	29
" San Jose de Guatemala .....	12	19	24	8	10	17	22	31
" Champerico .....	13	20	25		11	18		
" Salina Cruz .....	15		27		13		25	
Ar. Acapulco .....	17	23	29	7	15	21	27	June 4
" Manzanillo .....	19		May 1		17		29	
" San Blas .....	20	25	2	9	18	23	30	6
" Mazatlan .....		26	8	10		24	31	7
" San Francisco .....	26	May 2	9	16	24	30	June 6	13



*Pacific Mail Steamship Company—Panama line—Continued.*

## SCHEDULE OF ARRIVALS AND DEPARTURES—1906—continued.

## NORTH BOUND—Continued.

		1906.							
		May 29	June 5	June 12	June 19	June 26	July 3	July 10	July 17
Lv. Ancon			7	14	21		5	12	19
" Puntarenas				15		29		13	
" San Juan del Sur		June 1							
" Corinto		2	9		23	30	7		21
" Amapala			10		24		8		22
" La Union			10		24		8		22
" La Libertad		4	11		25	July 2	9		23
" Acajutla		5	12	18	26	8	10	16	24
" San Jose de Guatemala		7	14	19	28	5	12	17	25
" Champerico		8	15	20		6	13	18	
" Salina Cruz		10		22		8		20	
Ar. Acapulco		12	18	24	July 2	10	16	22	30
" Manzanillo		14		26		12		24	
" San Blas		15	20	27	4	13	18	25	Aug. 1
" Mazatlan			21	28	5		19	26	2
" San Francisco		21	27	July 4	11	19	25	Aug. 1	8

		1906.							
		July 24	July 31	Aug. 7	Aug. 14	Aug. 21	Aug. 28	Sept. 4	Sept. 11
Lv. Ancon			Aug. 2	9	16		30	6	13
" Puntarenas				10		24		7	
" San Juan del Sur		27							
" Corinto		28	4		18	25	Sept. 1		15
" Amapala			5		19		2		16
" La Union			5		19		2		16
" La Libertad		30	6		20	27	3		17
" Acajutla		31	7	13	21	28	4	10	18
" San Jose de Guatemala		Aug. 2	9	14	23	30	6	11	20
" Champerico		3	10	15		31	7	12	
" Salina Cruz		5		17		Sept. 2		14	
Ar. Acapulco		7	13	19	27	4	10	16	24
" Manzanillo		9		21		6		18	
" San Blas		10	15	22	29	7	12	19	26
" Mazatlan			16	23	30		13	20	27
" San Francisco		16	22	29	Sept. 5	13	19	26	Oct. 3

		1906.							
		Sept. 18	Sept. 25	Oct. 2	Oct. 9	Oct. 16	Oct. 23	Oct. 30	Nov. 6
Lv. Ancon			27	4	11		25	Nov. 1	8
" Puntarenas				5		19		2	
" San Juan del Sur		21				20			
" Corinto		22	29		13		27		10
" Amapala			30		14		28		11
" La Union			30		14		28		11
" La Libertad		24	Oct. 1		15	22	29		12
" Acajutla		25	2	8	16	23	30	5	13
" San Jose de Guatemala		27	4	9	18	25	Nov. 1	6	15
" Champerico		28	5	10		26	2	7	
" Salina Cruz		30		12		28		9	
Ar. Acapulco		Oct. 2	8	14	22	30	5	11	19
" Manzanillo		4		16		Nov. 1		13	
" San Blas		5	10	17	24	2	7	14	21
" Mazatlan			11	18	25		8	15	22
" San Francisco		11	17	24	31	8	14	21	28

*Pacific Mail Steamship Company—Panama line—Continued.***SCHEDULE OF ARRIVALS AND DEPARTURES—1906—continued.****NORTH BOUND—Continued.**

	1906.					
	Nov. 18	Nov. 20	Nov. 27	Dec. 4	Dec. 11	Dec. 18
Lv. Ancon .....		22	29	6		20
" Puntarenas .....		22	29	6		20
" San Juan del Sur .....	16		30		14	
" Corinto .....	17	24		8	15	22
" Amapala .....		25		9		23
" La Union .....		25		9		23
" La Libertad .....	19	26		10	17	24
" Acajutla .....	20	27	Dec. 3	11	18	25
" San Jose de Guatemala .....	22	29	4	13	20	27
" Champerico .....	23	30	5		21	28
" Salina Cruz .....	25		7		23	
Ar. Acapulco .....	27	Dec. 3	9	17	25	31
" Manzanillo .....	29		11		27	
" San Blas .....	30	5	12	19	28	1907. Jan. 2
" Mazatlan .....		6	13	20		8
" San Francisco .....	Dec. 6	12	19	26	1907. Jan. 3	9

	1906.		1907.			
	Dec. 24	Dec. 31	Jan. 8	Jan. 15	Jan. 22	Jan. 29
Lv. Ancon .....						
" Puntarenas .....	26	1907. Jan. 2		17	24	31
" San Juan del Sur .....	27		11		26	
" Corinto .....		4	12	19		Feb. 2
" Amapala .....		5		20		3
" La Union .....		5		20		3
" La Libertad .....		6	14	21		4
" Acajutla .....	30	7	15	22	28	5
" San Jose de Guatemala .....	31	9	17	24	29	7
" Champerico .....	1907. Jan. 1		18	25	30	
" Salina Cruz .....	3		20		Feb. 1	
Ar. Acapulco .....	5	13	22	28	3	11
" Manzanillo .....	7		24		5	
" San Blas .....	8	15	25	30	6	13
" Mazatlan .....	9	16		31	7	14
" San Francisco .....	15	22	31	Feb. 6	13	20

The Pacific Mail Steamship Company will not be responsible for changes in sailing dates of steamers of connecting lines nor for detention caused thereby. Passengers will be at their own expense when awaiting departure of steamers.

**CONNECTIONS.***Steamer departures from Ancon.*

Pacific Steam Navigation Company and South American Steamship Company:  
For Guayaquil and intermediate ports north thereof, alternate Tuesdays.  
For Guayaquil and intermediate ports south to Valparaiso, every Thursday.

*Steamer departures from Colon.*

Austro-Americana Line: For Genoa and Trieste, 22d.

Compagnie Générale Transatlantique:

For St. Nazaire and way ports, 3d.

For Marseille and way ports, 12th.

For Havre, Bordeaux, and way ports, 24th.

Compania Transatlantica de Barcelona: For Barcelona and way ports, 10th.

Hamburg-America: For Havre, Antwerp, Hamburg, Bremen, and way ports, 6th and 20th.

**La Veloce Navigazione Italiana:** For Genoa and way ports, 29th.

**Panama Railroad Steamship Line:** For New York, every Tuesday.

**Royal Mail Steam Packet Company:** For Plymouth, Cherbourg, and Southampton, via West Indies, alternate Fridays.

**United Fruit Company:** For New Orleans, every week.

**F. Leyland & Co. (1900) (Limited)** and Harrison lines:

For Liverpool via Mexican ports and for Kingston and New Orleans, every week.

For Liverpool, via United States ports, every ten days.

*Steamer arrivals at Ancon.*

**Pacific Steam Navigation Company** and **South American Steamship Company:**

From Guayaquil and intermediate ports north thereof, alternate Mondays.

From Valparaiso and intermediate ports north to Guayaquil, every Sunday.

*Steamer arrivals at Colon.*

**Austro-American lines:** From Genoa and Trieste, every month.

**Compagnie Générale Transatlantique:**

From Marseille and way ports, 9th.

From Havre, Bordeaux, and way ports, 19th.

From St. Nazaire and way ports, 29th.

**Compania Transatlantica de Barcelona:** From Santander and way ports, 8th.

**Hamburg-America:** From Hamburg, Antwerp, Havre, and way ports, 12th and 28th.

**La Veloce Navigazione Italiana:** From Genoa and way ports, 24th.

**Panama Railroad Steamship Line:** From New York, every Tuesday.

**Royal Mail Steam Packet Company:** From Southampton, via West Indies, alternate Mondays.

**United Fruit Company:** From New Orleans, every week.

**F. Leyland & Co. (Limited) (1900)**, and Harrison lines:

From Liverpool and way ports, every ten days.

From Liverpool direct to Colon, every Monday.

A. G. D. KERRELL,

*General Passenger Agent, San Francisco.*

A. M. GARLAND,

*Special Agent, Guatemala City.*

F. PEARNE,

*Agent, Ancon.*

ALEXANDER CENTER,

*General Agent, Merchants Exchange, San Francisco.*

**SAN FRANCISCO, December 1, 1905.**

*Panama Railroad Company—Panama Railroad Steamship Line.*

[Steamers leave from pier, foot of West Twenty-seventh street, New York, at 1 p. m.]

**INTENDED SAILING DATES, NOVEMBER, 1905, TO FEBRUARY, 1906.**

[Subject to change.]

**From New York:**

Havana, Saturday, November 25.

Allianca, Saturday, December 2.

Finance, Saturday, December 9.

Mexico, Saturday, December 16.

Advance, Thursday, December 21.

Havana, Tuesday, December 26.

Allianca, Saturday, December 30.

Finance, Saturday, January 6.

Mexico, Saturday, January 13.

Advance, Thursday, January 18.

Havana, Tuesday, January 23.

Allianca, Saturday, January 27.

Finance, Friday, February 2.

Mexico, Wednesday, February 7.

Advance, Tuesday, February 13.

Havana, Saturday, February 17.

Allianca, Wednesday, February 21.

Finance, Tuesday, February 27.

## From Colon:

Finance, Thursday, November 23.  
 Advance, Wednesday, November 23.  
 Mexico, Wednesday, December 6.  
 Havana, Wednesday, December 13.  
 Allianca, Tuesday, December 19.  
 Finance, Sunday, December 24.  
 Mexico, Sunday, December 31.  
 Advance, Saturday, January 6.  
 Havana, Thursday, January 11.  
 Allianca, Tuesday, January 16.  
 Finance, Sunday, January 21.  
 Mexico, Friday, January 26.  
 Advance, Wednesday, January 31.  
 Havana, Monday, February 5.  
 Allianca, Saturday, February 10.  
 Finance, Thursday, February 15.  
 Mexico, Tuesday, February 20.  
 Advance, Sunday, February 25.  
 Havana, Friday, March 2.

Time between New York and Colon, seven days.

## CONNECTIONS.

## At Colon:

Hamburg-American Packet Company.  
 Royal Mail Steam Packet Company.  
 Compagnie Generale Transatlantique.  
 La Veloce Navigazione Italiana A. Vapore.

} For Port Limon, Savanilla, and  
 Cartagena.

## At Panama—Pacific Mail Steamship Company:

Sailing every Tuesday for—  
 Acajula, Salvador, San Jose, Guatemala.  
 Acapulco, Mexico.  
 San Francisco, Cal.

Fortnightly for—  
 San Juan del Sur.  
 Amapala.  
 La Union.  
 Manzanillo.  
 San Blas.

Three times a month for—  
 Puntarenas.  
 Corinto.  
 La Libertad.  
 Champerico.  
 Mazatlan.

## At Panama:

Pacific Steam Navigation Company.  
 Cia Sud-Americana de Vopores, every Thursday for Guayaquil and intermediate ports to Valparaiso.  
 Pacific Steam Navigation Company, alternate Wednesdays for ports between Panama and Guayaquil.

Traffic department, 24 State street, New York.

R. L. WALKER, *Traffic Manager*.  
 C. C. VAN RIPER, *Passenger Agent*.

NEW YORK, November 17, 1905.

THE ACTING CHAIRMAN. How often, under the schedule that has just been received in evidence, are the ships of your company due to arrive at Panama?

MR. SCHWERIN. (After consulting schedule.) Do you want me to read them by the months, sir?

THE ACTING CHAIRMAN. No; unless it is the wish of some member of the committee.

MR. SCHWERIN. We are supposed to have an arrival and a departure

each week in Ancon, and an arrival and departure each week in San Francisco.

The ACTING CHAIRMAN. And during the past year has any ship of your company departed with a short cargo when there was not another ship in the bay ready to be unloaded or move out?

Mr. SCHWERIN. No, sir. I would like to read a letter on that point, sir.

The ACTING CHAIRMAN. I will be glad to have you.

Mr. SCHWERIN. I want to say that on one ship we lately had down there the Panama Railroad turned over to us on short-shipped papers a large number of packages, and the records on the papers show that some of those packages had been in their possession for seven months. I think the shortest time that any of those had been there was two months.

Here is a telegram on October 23, 1905, from our agent, Mr. Pearne, to Mr. Bierd:

"Please rush over the cargo for *Peking*, giving preference to the *Frisco*. Owing to this freight not being over we are at a standstill on her."

Mr. Bierd replies, under date of October 26, 1905:

"Your message concerning the *City of Para*. I will hold the *Advance* until noon Saturday for the twenty-five passengers if you will hold the *City of Peking* until Monday night to get her cargo ex *Advance*. W. G. Bierd."

That resulted in further telegraphic communication on November 7th by Mr. Pearne:

"Bierd, Colon: We held our steamship *Peking* against our judgment and will to receive by her the cargo ex your steamship *Advance* at your special request. We did this in order to help you out, at the same time feeling confident that you would adopt a new system of handling the cargo on the clearing up of the accumulation by the steamships *Aztec* and *Peking*, loading your cargo up direct from ship to car, as was done formerly, instead of storing on pier first. However, we find that no change whatsoever has been made, that the same system of piling cargo on pier is being pursued, and we are now up against it. We wanted the cargo ex *Advance* as stiffening for *Acapulco*, but in compliance with your request we held *Peking* for it. Now we have *Acapulco*, *Para*, and *City of Panama* in port, and the *Acapulco* and *Para* are suffering delay through the *Frisco* cargoes not coming over the road promptly. These continual delays would be avoided if the cargo was loaded direct to cars from ship. Please have these cargoes rushed over."

I would like very much to read this letter, under date of November 9, if I might be permitted to do so.

The ACTING CHAIRMAN. You have that privilege.

Mr. SCHWERIN. This is a letter of Mr. Pearne to Mr. Bierd:

PACIFIC MAIL STEAMSHIP COMPANY,  
Panama Agency, November 9, 1905.

W. G. BIERD, Esq.,  
Acting Supt., P. R. R. Company, Colon.

DEAR SIR: I beg to confirm my telegram of the 7th instant re to the forwarding of cargoes.

In this connection I desire to point out to you that the holding of the steamship *City of Peking*, V. 10, for the cargo ex steamship *Advance*

detained that steamer one week beyond her scheduled sailing date, and has also thrown the two steamers following her one week behind their schedule, thereby creating much confusion and dissatisfaction on the coast; and all this without anything having been gained by it, for, as before stated, we could have taken *Advance's* cargo by steamships *Acapulco* and *City of Para*. These two steamers represent a measurement capacity of 5,500 tons, more than sufficient to have moved balance of accumulated cargo on hand, and that to arrive the following week. However, as you were kind enough to allow us the wharf for our steamships *City of Peking* and *Aztec*—

As a favor when the lumber vessels were there; and I read this to show you that there is no intention or desire on our part to do wrong to the Panama Railroad. On the contrary, there is the agent's own letter, acting on his own authority, trying to help him out in every way, which we are all trying to do. (Reading:)

"However, as you were kind enough to allow us the wharf for our steamships *City of Peking* and *Aztec*, we acceded to your request to hold *Peking* for *Advance's* cargo, being under the impression when we did so that you were desirous of getting all the accumulated freight off by the *Peking* and *Aztec*, and start in with a new system of handling cargo on the departure of those two steamers, that is to say, that you would have cargo loaded direct from ship to car in future instead of piling it on your piers. We regret to note, however, that no change has been made in the system of handling; that cargo is still being piled on the pier. This system greatly detains the departures of our steamers, for it entails delay in getting the cargoes over the road.

"We wanted the 'Frisco cargo *ex Advance* as stiffening for steamship *Acapulco*. However, for reasons given, we held *Peking* for it, and ordered the 'Frisco *ex Mexico* to *Acapulco* and the 'Frisco *ex Havana* to *City of Para*. As these two cargoes have not come over the road promptly our steamers are suffering great detention, steamship *Acapulco* having only sailed to-day, and the way it looks *City of Para* will not get out before Tuesday next. Delay in getting the coal over the road is also contributing to the detention of our steamers. As, for instance, I would mention the *City of Para*, now in port; work on that steamer was at a standstill all day yesterday for the reason that she did not yet have the coal ordered. Had she been coaled she would have been taking in Corinto and Amapala cargo all day of the 8th. The *Para* is a tender ship and can not receive cargo in the 'tween decks until she has 'Frisco or coal in the lower holds for stiffening. You will therefore see that the delay in delivering the coal for the *Para* caused the loss of all of yesterday."

Now, there is a case where, had we had Frisco cargo, it would have gone in the lower holds, and that was a lost cargo; but even then, if she had had the coal on she could have taken the cargo in the between decks, which this ship would not have been able to have taken without some ballast in her to make her stand up, with her holds empty, showing even there that we were handling the ship in a way that it is improper to handle a ship.

"Further than detaining our ships, the delay in making delivery to us of coal runs up our expense in handling fuel for we are obliged to work overtime on the coaling in order to lessen the detention as much as possible. We have always asked for our coal through the regular channel, and that is by requisition on your La Boca agent, Mr. Hunt, but he has found it impossible to give us the coal for the reason that

he can not get it over the road. That is why I have taken the matter up with you by telegraph. I sincerely trust that you may be able to take some steps to remedy this condition in order that our steamers will not continue to be detained and our expenses increased through not receiving the coal in due time.

"That you may see what detention our steamers have suffered through inability to obtain large cargo and coal promptly, I beg to point out that the *City of Para* arrived 28th ultimo, making her to-day thirteen days in port, and she has only seven cars of Frisco cargo aboard. This certainly makes a very bad showing. Steamship *City of Peking* was in port seventeen days and the *Aztec* twenty-two days. It will be a very hard matter for me to explain to our management the detention to the steamship *City of Peking* in view of the fact that the cargo she waited for could have just as well been taken by steamship *Acapulco*. The only explanation to give is that which I have already mentioned. We were desirous of helping you out, and were anxious to move all the accumulated and detained cargo by the *Peking* and *Aztec*, so that you could begin afresh with a new system on the departure of those steamers. Consequently, with that end in view, we acceded to your request to hold the *Peking*.

"I also beg to bring to your attention the fact that the La Boca trains have been arriving late at La Boca, causing a loss to us at times of an hour and a half in one day in turning the laborers to. Would feel greatly obliged if you will bring this matter to the attention of your train dispatcher so that the remedy may be applied.

"Also beg to bring to your attention the great delay in the recent past in sending us cargo papers ex the Atlantic steamers. This delay in receiving the accountable receipts throws us back in our work, and is always likely to create detention in the loading of our ships. We should have the cargo papers at earliest possible moment after arrival of a steamer, so that we may know exactly what the steamer brings and plan out the cargo for ordering to our steamer and then give the cargo order to your La Boca office so that they can prepare for delivery of the cargo to us.

"Wish to particularly call your attention to the fact that the steamship *Venezuela* and the German steamer arrived about November 1, but their cargo papers have just been received to-day. Your steamship *Allianca* arrived on the 6th instant and her account receipts are not yet to hand. You therefore have an evidence of the delay in the forwarding of these papers. The account receipts just to hand are in very bad condition and, besides, a great many are short. Shall appreciate it if you will kindly bring this matter to the attention of your Mr. Crutchley.

"Another matter I desire to bring to your attention is the mixed-up condition of cargo coming over from Colon. I have noticed as many as four and five destinations come out of a single car. This condition of affairs results in a great deal of cargo being short delivered and going astray, and it makes considerable extra work in assorting the cargo here. The cargo forwarded to Colon from La Boca is loaded separately, and it would improve matters remarkably if steps could be taken to the end that all cargo also be loaded separately in cars at your end. The complaints from Central America in regard to short-shipped cargo are becoming more bitter every day. Shipments continue to go forward with packages short, and these short packages

often create the greatest inconvenience to consignees. A number of cables have recently been received relative to sending forward short-shipped packages. You can readily understand what a serious inconvenience this is to consignees, especially, for instance, where machinery is concerned. The shortage of a piece of machinery is quite likely to indefinitely retard the work on a mill, factory, etc., and cause the consignee a large financial loss.

"The facts herein presented are not brought to your attention in the light of a complaint, but merely to show you the condition of affairs and to ask that you kindly take whatever steps you deem advisable to remedy the conditions referred to. We are always desirous to cooperate with you in every way possible in handling the business, and will also greatly appreciate your cooperation in bettering conditions. In regard to loading the transit cargo direct from ship to cars instead of piling it on pier, I beg to conclude by saying that I think my suggestion of having it loaded direct to cars would be for the best interests of all concerned, and for the best interests of the Panama route.

"Thanking you in anticipation of whatever you may do in improving matters, I am,

"Very truly,

F. PEARNE, *Agent.*"

The ACTING CHAIRMAN. What is the date of that letter?

Mr. SCHWERIN. November 9, 1905, sir. Now, gentlemen, it does not require any great grasp of the situation—

Senator DRYDEN. What induced you in the face of all these conditions, which certainly must have resulted, relatively, in a loss to your company, to reduce your rates?

Mr. SCHWERIN. We did not reduce our rates; we were forced to reduce them.

Senator DRYDEN. You were compelled to do it; you did not do it voluntarily?

Mr. SCHWERIN. No, sir.

Senator DRYDEN. But you have reduced them?

Mr. SCHWERIN. I have not accepted the reduction of the Panama Railroad people yet on the Mexican rates. That has got to be thrashed out yet. Without any consent on our part they issued the schedules with the reduced rates.

Senator KNOX. You said a moment ago that that was done for the purpose of assisting the steel trust. What do you mean by that?

Mr. SCHWERIN. I mean that the traffic manager of the United States Steel Trust wrote Mr. Taft a letter setting forth the fact that the rates from Europe to Mexico were cheaper than they were from New York, and setting forth the fact that the United States manufacturers were suffering great injury from the fact that these conditions prevailed. Mr. Secretary Taft sent that letter to Mr. Walker, and Mr. Walker sent it to me, and I wrote a letter to the Secretary in which I called attention to the fact that the trust practiced the same thing; that is, they sold their articles abroad cheaper than they sold them to us in the United States, and I thought that if the shoe was put on the other foot it would be very much more in order; that the reason why we made these low freights from Europe was in competition with the German ships around the Horn, and sailing ships. You perhaps remember some time ago a controversy as to the rates of freight



shipped to Europe and then by sailing vessels to the west coast of America—a very low rate. The rates have been as low as 14 and 17 shillings from Europe to west Mexican ports. We can not compete with those rates.

Senator KNOX. Then, as I understand, the reason assigned was to enable the steel manufacturers here to compete with the European manufacturers of steel in the ports of Mexico? That was the reason of the reduction?

Mr. SCHWERIN. That is alleged.

Senator KNOX. I say, that is the ostensible reason?

Mr. SCHWERIN. Yes; and that will be proven by the amount of tonnage that the steel trust ships to those ports in the coming season.

Senator KNOX. You say that is alleged. Now, what other reason would you assign, or can you assign?

Mr. SCHWERIN. I think they have simply gotten a reduction on the tonnage which they have been previously moving, which they have always been trying to get; that is all. There is no traffic manager of any large corporation that is not always showing his value by trying to bring down the rates. That is what he is there for.

Senator KNOX. And your answer to Secretary Taft was that the steel companies were selling their products in Europe for less prices than they were charging in the United States?

Mr. SCHWERIN. Yes, sir. I never received any reply to that letter. I asked the Secretary to consider our interests before any such rates were made.

Senator DRYDEN. Does the Panama Railroad have a right to arbitrarily fix rates on your steamship lines?

Mr. SCHWERIN. I did not discover that until this case came up, sir. Under the old contract either initial carrier had the right to make the initial rate. That is, on all freight originating in the United States, west bound, the Panama Railroad made the rate. On all freight originating in the United States, east bound, we had the right to make the rate. That was down to a minimum. If either line desired to go below that minimum, in order to obtain competitive freight, it had to be done by mutual consent. Now, Mr. Walker wrote me a letter in regard to these rates and said that in view of the public opinion calling for reduced rates via the Isthmus he thought we ought to reduce the rates to meet the European classifications. I took the matter up and it was under discussion. While it was under discussion the first thing I saw was the schedules issued and effective.

Senator KNOX. But were these rates fixed on still below the minimum?

Mr. SCHWERIN. Oh, yes, sir.

Senator KNOX. Then, under that arrangement, they are not binding upon you unless you acquiesce?

Mr. SCHWERIN. That is the old contract. The old contract does not exist.

The ACTING CHAIRMAN. That is the contract that was annulled?

Mr. SCHWERIN. That was annulled, you see—that is, since last July—and this was only very recently.

Senator KNOX. What is the situation now? Do the steamships that carry the freight from New York down to Colon have the right to fix the through rate?

Mr. SCHWERIN. Apparently that is the assumption that exists to-day—that they have a right to make any rates they please.

Senator KNOX. Then they have not done anything more than they had a right to do?

Mr. SCHWERIN. I never have discovered any traffic arrangement between connecting carriers by which one can make the rate over the other man's line except by mutual consent.

Senator KNOX. I understood you just now to say that that has been the practice.

Mr. SCHWERIN. Under the contract—the written agreement between us.

Senator KNOX. No; you do not understand me, then. I say, in the absence of a contract, what is the rule where freight is carried by several carriers in respect to the initial rate; by whom is it fixed?

Mr. SCHWERIN. It is fixed by mutual consent.

Senator KNOX. By mutual consent. Then, there being no contract, this rate upon steel would not be binding upon you without your consent?

Mr. SCHWERIN. Oh, certainly not. There is nothing to bind us to accept these divisions which the auditors may account to us for; we may decline to accept them.

Senator KNOX. Then, whatever may have been done in the way of reduction would not be accepted by you unless you desired to accept it?

Mr. SCHWERIN. Yes, sir. Nevertheless that is a very arbitrary way to make a rate effective, and I doubt if any ordinary transportation lines, mutually working together, would make such a rate effective.

Senator KNOX. Do not misunderstand me. I am not trying to defend it; I am just trying to find out what the facts are.

Senator DRYDEN. You have seen no improvement in these conditions down to the present day?

Mr. SCHWERIN. No, sir; I fear they are getting worse.

Senator KNOX. What is your idea of the remedy?

The ACTING CHAIRMAN. May I ask one question before you answer that?

Senator KNOX. Certainly; go ahead, sir.

The ACTING CHAIRMAN. Is there any appreciable increase in commercial business to-day as compared with traffic a year or two years ago?

Mr. SCHWERIN. There is about 400,000 tons of freight of all classes that crosses that road between the Atlantic and Pacific seaboard, and with our line there is about 200,000 tons. We handle more freight with the Panama Railroad than the South American companies do. You notice that in their testimony the South American companies are not accused of making any blockade. The freight from San Francisco east is about the same. The freight from New York to San Francisco has fallen off, and it has fallen off just about as much as the freight from New York and Europe to Central America has increased. The freight from New York to Colon has increased about 15,000 tons.

The ACTING CHAIRMAN. Over what?

Mr. SCHWERIN. Over last year.

The ACTING CHAIRMAN. By "last year" you mean 1905?

Mr. SCHWERIN. 1905. I am speaking of 1905, practically.

Senator KNOX. Can you tell us what percentage of increase there is?

Mr. SCHWERIN. I think I have it here, sir. (After consulting papers.) The increase of 1905 over 1904 of freight from the United States and Europe to the Isthmus of Panama, that stayed there, you

understand, that was not billed beyond either to the south or the north, and might have been for the canal purposes or for use locally or anything else—I do not know what the ultimate destination of that freight was, but it remained on the Isthmus for local consumption—the total of that freight from the United States and Europe to the Isthmus of Panama in 1904 and 1905 for local consumption—

Senator ANKENY. You run from June to June, do you, Mr. Schwerin?

Mr. SCHWERIN. On this proposition here we are taking it differently. Our fiscal year runs differently from this statement here, because this is from the 1st of the year to the 31st of the following year.

Senator ANKENY. I thought you ran from June to June?

Mr. SCHWERIN. No, sir; this is from the 1st of January, 1904, to and including the 31st of December, 1905, and from the 1st of January, 1905, to and including the 31st of December, 1905.

Senator ANKENY. I did not know what your practice was.

Mr. SCHWERIN. That is, in making up these statements.

In 1904 there were 17,262 tons. In 1905 there were 29,046 tons—an increase of 11,784 tons, equal to 68 per cent. Now surely 11,784 tons in addition to the lumber that has been sent to the Isthmus should not cause this terrible demoralization that has been getting worse and worse for nearly two years.

Senator DRYDEN. That is a pretty large increase by percentage though, if the road was worked to its capacity before. That would be a pretty heavy burden to put upon it.

Mr. SCHWERIN. But, Senator, this is not 68 per cent of the total 400,000 tons. It is only an increase—

Senator DRYDEN. Sixty-eight per cent increase on the previous amount?

Mr. SCHWERIN. No; merely local business to the Isthmus, which was only 29,000 tons in 1905 as against 17,000 tons in 1904.

Senator DRYDEN. I see; that refers only to the local business?

Mr. SCHWERIN. Merely to the local business. Now, what I wanted to bring out was this: That the gross business of the Isthmus has not very materially increased; the increase would be the natural growth of business to the Isthmus, and that has only increased 11,000 tons, and the mere 11,000 tons should not cause any such demoralization as now exists in the handling of commercial freight.

Senator KNOX. I would like at this point to repeat the question that I asked a moment ago, and I will put it in a somewhat different form. In view of the increased demands upon the railroad, caused by the handling of Government material and the preparation for the construction of the canal, what is your suggestion of a remedy for this commercial condition?

Mr. SCHWERIN. Might I answer that to a certain degree in another way, Senator, and perhaps explain myself better?

Senator KNOX. Answer it in your own way, but we want it answered.

Mr. SCHWERIN. I was for more than twelve years manager of the purchase and supply department of the Southern Pacific Company, and Mr. William Hood was the chief engineer. We did together some very large pieces of work, with expenditures running into the hundred of millions of dollars. I have sent Mr. Hood from a million and a half to two millions' worth of material before he ever "struck a lick;" and then I fed it into him where he would have several thousand men

working, scattered over a territory of perhaps 5,000 miles. Now, there was a strenuous effort all that time to keep the material moving, and at the same time the ordinary traffic conditions of the road were being provided for, and I had my fights with the traffic officials to keep Mr. Hood's material going. Suppose that they had turned over the operation of the road to Mr. Hood and myself, we would have taken mighty good care that our material would have moved, and the rest of the traffic would probably have had to be sidetracked, and there would have been confusion to a great degree; and whereas our material would have been the smaller percentage that passed over the road, at the same time that small percentage would have demoralized the great percentage of the commercial traffic. That is the condition that is created, and that is the situation in Panama.

Senator KNOX. Will you now answer the question a little more categorically?

Mr. SCHWERIN. Now, directly, I think that the question of the operation of that railroad across the Isthmus should be under its own officers, and the canal material should be handled just the same as commercial material, and the operating officers held responsible for the prompt receipt and delivery of canal material, just exactly the same as they should be held responsible for the prompt receipt and handling of the commercial business.

Senator KNOX. Would you give the Government material no preference?

Mr. SCHWERIN. The French did not.

Senator KNOX. Well, I am asking you if that is your idea.

Mr. SCHWERIN. No, sir; no, sir.

Senator KNOX. You would put it all on a parity?

Mr. SCHWERIN. Then they would take care of their requirements and be in much better condition to know what they were doing and what they are doing now. This confusion has resulted in great loss to everybody. The claims that will come in from this business—they are slow in coming in, you know, but they will begin to come in—will be enormous. We had a lot of tonnage dumped on us the other day, and we were asked if we could not get rid of it for the Panama Railroad. All identification had been lost; requesting if we had claims to which we could apply this stuff to such claims.

Senator KNOX. That is all I want to ask you.

Senator DRYDEN. Do you know whether they have increased or decreased or kept stationary in regard to the freight cars, the engines, and such as are used for transporting this material?

Mr. SCHWERIN. I know that they had, when the Government took hold, about 600 cars available for tonnage—between six and seven hundred flats and box cars. I know that Mr. Wallace promised that cars would be ordered. They were ordered, but they were dump cars. I know that Mr. Stevens and Mr. Shonts have promised equipment, and we have not seen it yet. We have heard of it. We have been promised all this. It has not materialized, although they are now going on the second year since the Government has taken charge.

Senator DRYDEN. But they have about the same number of cars and engines that they had before?

Mr. SCHWERIN. I think there has been some slight increase. My agent reported to me that he heard they were putting some cars together on the Isthmus. Now, Mr. Walker told me that they were

going to have 30 and 40 ton cars, and they were going to have big engines, and were going to haul big loads. That would mean that all the culverts and bridges and everything would have to be practically rebuilt or strengthened before they could handle them. I have no doubt they are doing all that; but meanwhile here is a situation which confronts us, and for some reason we are held up to the ridicule of the American people when we have been trying to do our best, struggling to keep that line going. There is no money in it. There is no money in that line. I would like to show you gentlemen what that line has done for the last four years.

Senator DRYDEN. You mean the steamship line?

Mr. SCHWERIN. Yes, sir.

Senator KNOX. I do not know that that is particularly relevant to anything we are inquiring about.

The ACTING CHAIRMAN. No; I think that is unnecessary, unless some member of the committee desires it.

Mr. SCHWERIN. The only reason I said that, Senator, is because the question has been to punish the Pacific Mail Steamship Company for this neglect of its duty as a connecting carrier with the Panama route. The proposition is, "Can it be punished through its mail contracts?" Well, you can take that \$2,880 away; that is something.

The ACTING CHAIRMAN. I call your attention, Mr. Schwerin, further to the statement of Mr. Secretary Taft made before this committee January 11, 1906, and read—

"Senator MORGAN. Allow me to make this inquiry right there: Does the Pacific Mail Steamship Company claim the rights of the coastwise trade between Panama and San Francisco, for instance?"

"Secretary TAFT. Oh, yes, sir; they are claiming those rights."

"Senator MORGAN. They claim those rights?"

"Secretary TAFT. Oh, they have those rights; yes, sir; so that no company could go into that business, under your coastwise laws, without having an American registry."

What have you to say about that statement?

Mr. SCHWERIN. We have no rights on the west coast. The ships that we operate are ships of American bottom, and the franchise granted to the Panama Railroad Company gave the right of conducting freight from New York to San Francisco and vice versa as though the Panama Railroad was an American bottom and the route was practically a coastwise route. But we have no claim on that route over anybody else—none whatever. As a matter of fact, any other American steamship company can go in that business; and they have got to compete not only with us, but with the Kosmos Line, with the Messagerie Maritime Line, and with schooners and sailing vessels that are operating up and down the coast.

The ACTING CHAIRMAN. I again read from the testimony of Mr. Secretary Taft:

"Senator GORMAN. Mr. Secretary, this suggestion as not to putting on proper steamers between Panama and San Francisco and leaving the freight to accumulate is the result of your order breaking up the monopoly, is it not?"

"Secretary TAFT. Yes, sir."

I will ask you to state what the fact is about that.

Mr. SCHWERIN. Deny the Secretary's allegation that we have done anything of the kind. On the contrary, we have got larger steamers

on now than we had when we had a contract with the Panama Railroad Company, as I have stated before; and we have tried to maintain our schedule and give the service that our obligations to Central American and Mexican countries and the United States shippers required.

**THE ACTING CHAIRMAN.** You have larger steamers than at what time?

**MR. SCHWERIN.** Than we had before, two years ago. The *City of Peking*, a steamer of 5,000 tons, replaced a steamer of less than 2,000 tons. The *City of Para*, a steamer of nearly 4,000 tons, replaced the *Colon*, a steamer of about 2,000 tons.

**THE ACTING CHAIRMAN.** And how does the volume of business at the present time compare with the volume of business two years ago?

**MR. SCHWERIN.** The volume is about the same.

**THE ACTING CHAIRMAN.** The monopoly mentioned I assume refers to the contract which in former time existed between your company and the Panama Railway?

**MR. SCHWERIN.** The monopoly of through billing, the right to through billing?

**THE ACTING CHAIRMAN.** Yes.

**MR. SCHWERIN.** I do not know of any monopoly there. We had no monopoly.

**THE ACTING CHAIRMAN.** Was there any other contract between your Company and the Panama Railway Company relating to traffic except the contract that was annulled July 1 of last year?

**MR. SCHWERIN.** That is the sole contract the Pacific Mail Steamship Company had with anybody.

**THE ACTING CHAIRMAN.** And what were the terms of that contract, in a general way?

**MR. SCHWERIN.** The terms of that contract were that the two steamship companies would endeavor in every possible way to build up the traffic via the Isthmus route.

**THE ACTING CHAIRMAN.** You refer to "two steamship companies.

**MR. SCHWERIN.** That is, the Panama Steamship Company and the Pacific Mail Steamship Company. Practically the route was called the union of the two steamship companies with the railroad company. The contract was really a traffic contract. It provided for their co-operation in interchange of business at Ancon; it provided for the mutual making of tariffs and rates; it provided for the division of those rates; it provided for minimum rates, and it provided that the Panama Railroad Company, if at any time it was dissatisfied and thought that we were not doing right and proper, had a right to take our steamers, and if we decided that they were not doing right and proper in regard to building up trade via the Isthmus, we had a right to take their steamers and operate them.

**THE ACTING CHAIRMAN.** I call your attention to the testimony of Mr. John F. Stevens given before this committee January 16, 1906, and read first a letter from Mr. W. G. Bierd. Is that the gentleman that you have been talking about?

**MR. SCHWERIN.** Yes, sir.

**THE ACTING CHAIRMAN.** And then certain portions of his testimony.

"OFFICE OF GENERAL SUPERINTENDENT,  
 "PANAMA RAILROAD COMPANY,  
 "Colon, January 4, 1906.

"Mr. J. F. STEVENS,  
 "General Manager, Panama Railroad Company,  
 "Care of W. L. Pepperman, Washington, D. C.

"DEAR SIR: Referring to your cablegram and my reply on the condition of cargo now on the Isthmus, I wired you fully and a little longer than I desired to to apprise you of our exact condition.

"This subject has also been under investigation from the New York office, and I attach hereto a copy of my letter to Mr. Walker that will give you full details of our present condition and the causes for the same, and I can only add that unless the Pacific Mail gives us more ships or change their manner of taking their cargo, this accumulation will soon have us blocked again, and the condition is one that is entirely beyond my control.

"I have gone over this situation carefully with their agent, have wired their San Francisco office, and you are now familiar with what has been said both to you and the New York office.

"The true facts in the matter are that the sailing that was suppressed by them was done to divert the ships to the coffee trade, and the small ships that did come left over a large amount of cargo, and to-day they have 6,000 tons of cargo on the Isthmus after their ship, the *City of Peking*, sails. Therefore, if they offer us a large run of coffee at this time, it reaches us with one-half of our equipment tied up with their freight. We have everything at Colon very full. I have got one-half of the new wharf at La Boca inclosed, and we began yesterday to store this wharf full of their cargo to release our cars, whereas the same was rushed through to enable us to handle the coffee in the proper way.

"Yours truly,

W. G. BIERD, *Superintendent.*

"Mr. STEVENS. In other words, we get the freight over there and they do not take it. The situation is analagous to one like this: Here are two railways, end to end, you may say. Here is a place here where goods are sold and here is where they are to be delivered. There are different stations along this line. Now, the fellow here who takes the freight first carries it over his railroad. When he gets here he is supposed to turn these cars of freight over to the next man to take to these points.

"This railroad man says 'No; I won't take them, because I am only running through freight trains. I don't stop at these stations—Smithtown and Jonestown, and all those. I don't stop there and I can't take them. I will take the through freight that goes,' we will say, 'to San Francisco at this end.' Do you see the point? He does not run any trains for ten days or three weeks or a month; then he runs a little local freight. In the meantime you have got to 'hold the sack.' And that is what we are doing to-day.

"Senator HOPKINS. That situation comes from the fact that it is more profitable to take the through freight than to take the local freight?

"Mr. STEVENS. Yes, sir.

"Senator GORMAN. Have you not got a perfect remedy for that by refusing to allow the ships to unload at Colon unless they take the freight from the other end—from Panama?

"Mr. STEVENS. Well, Senator, I have put the matter up to our people and told them that one of two things must be done: The Pacific Mail either must furnish the ships to take that mail as it comes, or we must make arrangements with somebody else or put on ships of our own."

Have you any statement that you desire to make in regard to that letter and the testimony of Mr. Stevens?

Mr. SCHWERIN. All I can say is that what Mr. Stevens says in relation to what they want us to do is absolutely correct, but it shows that Mr. Stevens as a railroad man is not at all familiar with the methods of transacting steamship business, and that business can not be handled on the basis he suggests. It must be sorted out and must be delivered to us in lots complete, with bills of lading and manifests and accountable receipts. Mr. Stevens is used to railroads interchanging freight under expense bills and a railroad freight list. Now, he speaks of the interchange of freight—

The ACTING CHAIRMAN. Before we reach that point, may I ask in what respect the business of railways, pure and simple, differs from the business of the Pacific Mail Steamship Company and the Panama Railway Company and the steamship company between here and Colon?

Mr. SCHWERIN. When a man ships a bill of goods by railroad he gets an expense bill, and that expense bill carries those goods through to destination. If those goods originated in New York City and were going to San Francisco, the expense bill would carry you clear through to San Francisco, and you would get a notification of the arrival of the freight, and the railroads handling those through cars would check up the cars all the way through in their billing, examine the seals, and deliver the car intact.

Now, suppose a man ships at the same time a carload of freight to San Francisco via the Isthmus. He gets a marine bill of lading that is entered on the ship's manifest by marks and numbers and description. It goes to Colon, and there the railroad people check against their own ship to see that the freight is delivered to them. It is broken there; it is not in a common seal car; it is broken bulk. There it is loaded into cars, and the cars are sealed, or supposed to be, and there it is delivered at Panama. There again the railroad company deliver broken bulk to the steamship company, and the goods are checked, package for package, into the ship, against the steamship company; so that the steamship company's officials give the railroad company's officials a receipt for the cargo, and then that is checked up with a manifest, bills of lading, and accountable receipts, and that goes on to San Francisco, and the goods are there delivered on accomplished bills of lading.

Now, if that freight was all San Francisco freight, it would not make any difference if it was all mixed in the ship, if there were forty bills of lading, provided those bills of lading were complete in themselves. It would not make any difference about the mixing in the ship, because it would all be turned out on the dock in San Francisco, sorted according to marks, and delivered to the consignees according to their bills of lading. But when you have to take this cargo to the different ports along the coast, it must be sorted into the ships, not only by the marks in lots, but it must be sorted by the ports to which it is waybilled.

For instance, suppose a way-freight train is loaded out of, we will say, San Francisco to Santa Barbara, and she is carrying freight for



towns all along the line. If there is a carload of freight for San Mateo, that car is cut out at San Mateo; or, if there is not enough freight to fill a carload for San Mateo, there may be freight for half a dozen small places in that car; the San Mateo freight is taken out, and the rest of it is carried along.

Mr. Stevens would have you believe that if there were twenty cars of way freight going down, they would sling that freight into the cars any way; there might be freight for each one of those ten, fifteen, or twenty places mixed all through the twenty cars. I would like to see the freight conductor take his freight out when he got to San Mateo, when he wanted to get out 4 or 5 tons of freight, and have to chase through the whole twenty cars to find it. That is what he would expect us to do on the west coast of Central America. At Point Arenas we would have to turn the ship inside out to get, perhaps, 75 to 80 tons of freight destined for Point Arenas, and so on to La Libertad, La Union, Amapala, and all the way up the coast.

One of the most dangerous things we have ever done came about through this method of turning the cargo over to us. They sent us a whole lot of powder destined to a German man-of-war, and that always is specially listed and specially handled. We did not know it was powder. It was all crated and was put in the *Newport*, a passenger ship. Then they accidentally found it out. The papers came over long afterwards, just before the ship was going to sail, and we had to turn that ship clean out again to find that powder. Now, if that is a proper way to handle business I have not anything more to say, and I am perfectly willing to acknowledge that we are all wrong in this business, and perfectly willing to load these vessels up just exactly the way the Panama Railroad officials say we should load them, provided the railroad company will pay for the demurrage and the delays of these ships and will acknowledge to everybody that the cause of this delay is because they want the ships loaded that way.

We did not have all this trouble before; and if they are right in their methods of trying to conduct this business, why should we have it now? Certainly there is nothing to show that we have intentionally done it; there is every reason to show the contrary. Now, he says we lost the sailing of a ship on the 26th. It is true we lost that sailing, because the *Peking* had been held back so long that she could not get on her run again. It was absolutely impossible. She arrived so late in San Francisco that she had to drop out of her schedule and go back a week and commence over again.

That question was so long, Senator, that I do not know that I can carry all of it along in my mind. If I have not answered it fully, I would be glad to have you remind me of the parts I have not answered.

The ACTING CHAIRMAN. There is just one little question. I will ask you whether your company received any demurrage from the railway company on account of any of the delays that you have mentioned?

Mr. SCHWERIN. No, sir; not a penny, sir.

Senator KNOX. I am personally more interested in getting at the remedy for this difficulty than anything else, and I want to read you an answer to a question that Senator Morgan propounded to Mr. Stevens. Mr. Stevens, in reply to a question as to the causes of the congestion, said that it was a combination of causes that gave rise to it. "In the first place," he says, "the rolling stock of the road was

not and is not sufficient to handle the business of the road as it should be handled; neither the car equipment nor the motive power—that is, the engines.”

Then Mr. Stevens went on in another place and told us that since the United States had taken possession there had been ordered 144 new engines and 500 box cars, and some twelve or fifteen hundred of other sorts of cars which had not yet been delivered, and deliveries were about to commence. When that equipment reaches there and is put into service, do you not think that there will be very little difficulty in handling all of the traffic of that road?

Mr. SCHWERIN. When do you consider that will be there, Senator? Those locomotives have just been ordered.

Senator KNOX. No; he said that 24 were ordered in Mr. Wallace's time, and then 120 were ordered by Mr. Stevens; and he says the deliveries will begin, as I recollect it, in February, and will probably be completed by June.

Mr. SCHWERIN. That should go a long way, provided they do not mix the freight.

Senator KNOX. That additional equipment and a little more regularity in the handling of the freight, to prevent it being mixed up, so that it could be handled readily and stored in the ships in the order of its delivery will obviate the difficulty?

Mr. SCHWERIN. It will, provided those men who have now been instilled with the idea that commercial freight does not count will recognize the fact that they have got to pay just as much attention to handling commercial freight, for which they are receiving a handsome revenue, as to handling canal freight.

Senator KNOX. But Mr. Stevens does not say that commercial freight does not count. He told us this in answer to the next question—Senator Kittredge said:

“Do you refer to purely commercial business?”

And Mr. Stevens said:

“It is hard to separate them, because the Commission business must be handled at the same time as the commercial business.”

He seemed to have the same thought that you did—that they had to be handled just as a railroad would handle any traffic.

Mr. SCHWERIN. No; I do not think he means that in that sense.

Senator KNOX. I only know what he says.

Mr. SCHWERIN. I know, but I think that the interpretation of that would mean that both canal material and commercial material coming to the Isthmus must of necessity be handled while on the Isthmus; but whether or not one should be given the preference over the other is not clear in that statement. They must naturally be handled at the same time.

Senator KNOX. And Mr. Stevens further states, which is somewhat in the line of your own criticism, that “the methods of the people who were operating the road were not, according to my judgment, the best in the world;” that they would have to be improved. Now, if those three conditions are met, namely, if sufficient equipment is supplied there within the next two or three or four months—and by “sufficient equipment” I mean motive power and cars—and a better method of handling the freight is adopted, as suggested both by you and by Mr. Stevens, do you not think that difficulty will be obviated?

Mr. SCHWERIN. I have not the slightest doubt that when they get

the proper motive power and get the proper equipment, and if their bridges and trestles and everything have been strengthened for that equipment, and they will load the cars as they should be loaded, and not give preferential conditions to canal material, and consider that they have a connection on the Pacific side that should have some consideration in the movement of freight, and that their agent has some desire to cooperate with them and to help them, the situation will be very materially improved. I do not think that the power and the rolling stock will benefit this situation unless they handle the power and rolling stock as they ought to handle it; and that I do not understand—

Senator KNOX. I was just going to ask you this: Do you not think that Mr. Stevens, recognizing as he does the fact that the road has not been operated in the best possible manner, and the fact that the equipment is worn out and insufficient in quantity, and doing his best to correct that situation, is doing all that he reasonably can be asked to do?

Mr. SCHWERIN. Well, I am not prepared to say that he is doing it.

Senator KNOX. I say, assume that he is doing it, as he has testified that he is—do you not think that is all he can be asked to do?

Mr. SCHWERIN. The results do not show that.

Senator KNOX. Well, now, really, I do not ask it in any offensive way, but you have smarted a good deal under this criticism by Secretary Taft, have you not?

Mr. SCHWERIN. Undoubtedly. I should think that—

Senator KNOX. And you have been just a little heated in your testimony on the subject, have you not?

Mr. SCHWERIN. As a reply to the Senator I would like to put in evidence that advertisement in a New York paper. [Referring to advertisement hereafter printed in this record.]

Senator KNOX. Now, will you not answer my question? You have felt a little heated in giving this testimony, have you not?

Mr. SCHWERIN. Not in the slightest.

Senator KNOX. Very well; that is all.

Mr. SCHWERIN. Personally I have no connection with any feeling of heat whatever; but in regard to an American company operating in the foreign mercantile marine, I think it is too bad that it should be held up to ridicule before the people of the United States when it is practically the only company that has maintained its organization in the foreign trade since 1840 odd. It is the last company that has practically tried to keep the American flag afloat, and that it should be disgraced and discouraged by high officials in this country, in my opinion, is wrong and should not be tolerated. And I, as an American citizen, rise to the occasion as an American citizen, sir; and not as an officer of the company, but as an American citizen, I may have been "het up."

Senator KNOX. Well, that is what I thought. [Laughter.]

Senator DRYDEN. I think we will agree with you in your views upon that particular point.

Senator MORGAN. What would be the effect on the business of the Pacific Mail Steamship Company between San Francisco and Panama if the Government of the United States should institute a line of steamers there sufficient to transact its own business?

Mr. SCHWERIN. We would instantly withdraw, sir.

Senator MORGAN. Why?

Mr. SCHWERIN. It would be impossible to live, and we have no treasury to maintain the steamers there for sentimental purposes.

Senator MORGAN. You are, then, dependent upon the Government patronage for your livelihood?

Mr. SCHWERIN. We are absolutely dependent upon our Government connection for our livelihood.

Senator MORGAN. The same result would follow if we should treat Panama and San Francisco and all intermediate points as not being protected by the coastwise laws?

Mr. SCHWERIN. Yes, sir; the South American Company, which is a subsidized line, and the Pacific Steam Navigation Company, which is a subsidized line, would immediately proceed north of Panama, serving all the west-coast ports, and take cargo between Panama and San Francisco.

Senator MORGAN. Your company has no subsidy?

Mr. SCHWERIN. None whatever, sir—not a dollar; it never has had since I have been in it.

Senator MORGAN. And has it any traffic arrangement with any of the transcontinental railroads?

Mr. SCHWERIN. Not a scratch of a pen, sir.

Senator MORGAN. Nothing of that sort exists now?

Mr. SCHWERIN. Nothing of that sort exists now and never has since I have been in this organization, since 1892.

Senator MORGAN. Do you mean 1892 or 1902?

Mr. SCHWERIN. In 1892.

Senator MORGAN. You do not call the contract that has just been terminated a traffic arrangement, then, do you?

Mr. SCHWERIN. With the Panama Railroad?

Senator MORGAN. Yes.

Mr. SCHWERIN. Yes, sir; but that is not a transcontinental road. You asked me in connection with transcontinental roads.

Senator MORGAN. Yes, I know; but have not the transcontinental railroads, since 1892, or some of them, had some interest in this traffic arrangement?

Mr. SCHWERIN. Not the slightest that I know of.

Senator MORGAN. That was exclusively between the Pacific Mail Steamship Company and the Panama Railroad and the line on this side of the Isthmus?

Mr. SCHWERIN. Yes, sir; and, paradoxical as it may appear, as the traffic manager of the Pacific Mail operating out of San Francisco I was as bad an advocate, Mr. Stubbs says, against them as any man there was in the business. I was out for all the business I could get. I took charge of the Pacific Mail Steamship Company when it was bankrupt, going into the hands of a receiver, and I have made it what it is; and on that line, Mr. Senator, I feel "het up" when I see anything like this going out. I have tried to keep the American flag afloat, because I have been a naval officer, and I have pride in that part of it.

Senator KNOX. That is very commendable.

Senator MORGAN. To what points does the Pacific Mail Steamship Line run ships besides to Panama?

Mr. SCHWERIN. We run ships from San Francisco to Honolulu; from Honolulu to Yokohama; from Yokohama to Kobe; from Nagasaki to Shanghai, Hongkong, and Manila.

Senator MORGAN. It is one line?

Mr. SCHWERIN. Yes, sir; we have five steamers on that line. Two of them are of 28,000 tons, two of 18,000 tons, and one of 10,000 tons.

Senator MORGAN. And that is all the Pacific traffic you have across the Pacific?

Mr. SCHWERIN. That is all the Pacific Mail have. Then the O. and O. Steamship Company runs across another line from San Francisco on that same route, and the Portland-Asiatic Steamship Company, of which I am vice-president and general manager, run another line from Portland.

Senator MORGAN. They are not connected in any way with the Pacific Mail?

Mr. SCHWERIN. No, sir; they are entirely different corporations. I am the managing officer, but there is an entirely different board of directors.

Senator MORGAN. I think you have answered all the questions that I want to ask you, particularly that one in regard to the explanation of Mr. Secretary Taft's statement about putting on steamers of less burden after this action of which he spoke.

Mr. SCHWERIN. It is absolutely false. I am sorry to make that remark, but it is absolutely false; and I think the Secretary must have made that statement through misapprehension, as a result of misinformation. I would like to have that advertisement go into the record of these proceedings.

Senator MORGAN. The Secretary said he spoke on information.

The ACTING CHAIRMAN. That may be inserted, Mr. Schwerin.

(The advertisement referred to, which appeared in the financial column, page 9, of the New York Sun for Wednesday, January 31, 1906, is as follows:)

OPPONENTS  
OF THE  
Ship Subsidy Bill

Senator Taft advocates that the Pacific Mail Steamship Company be penalized for nonfulfillment of its Government contracts.

Read his testimony as to the rotten conditions of the Pacific Mail Government freight service.

For further details address Attorney, Box 303, Washington, D. C.

Mr. SCHWERIN. Have I answered, Senator, all that you asked me there? Your question was quite a long one and I do not know whether I have covered all the points fully.

The ACTING CHAIRMAN. It was intended that your answer should be general rather than specific, unless some member of the committee should wish to have it more specific.

Mr. SCHWERIN. Could I read that testimony over? There was one point there that I would like to explain, sir.

The ACTING CHAIRMAN. Yes; certainly.

(Mr. Schwerin was thereupon handed the printed testimony referred to.)

Senator MORGAN. May I ask you a question about this advertisement? This appears to be an enterprise of some Washington lawyer for the purpose of getting clients, as well as I can understand it. He

says: "For further details, address Attorney, box 303, Washington, D. C." What do you understand by that, except that it is addressed to the outside world for the purpose of getting fees for furnishing information upon this statement?

Mr. SCHWERIN. I suppose you have seen the daily press, where the accusation is made that we were trying to divert business from the Isthmus route to transcontinental roads through this alleged attitude of blocking the Isthmus; that we are the cause of preventing the construction of the canal, and that shippers have sent freight to the Isthmus via San Francisco.

Senator MORGAN. Really, you will have to think I am a long way behind the times, because I have not seen any of those things.

Mr. SCHWERIN. Well, sir, the eastern papers and our western papers have been filled with that. When Secretary Taft's statement was made about our being in the factor business, the San Francisco Chronicle frothed at the mouth to show that this monopoly had its tentacles even on the coffee planters of Central America, throttling trade.

Senator MORGAN. I wish to say here, in behalf of myself as a member of this committee, that I have heard of no statement by Secretary Taft that looked at all in this direction, that he advocates that the Pacific Mail Steamship Company be penalized for the nonfulfillment of its Government contracts.

Mr. SCHWERIN. Yes, sir; that was before the subcommittee on appropriations. His testimony there is quite full of it.

Senator MORGAN. Oh, I did not know about that.

Mr. SCHWERIN (after reading over the testimony heretofore referred to). Well, as to this statement here, which you read, as I remember, "The true facts in the matter are that the sailing that was suppressed by them was done to divert the ships to the coffee trade"—I say that, again, is absolutely false. There has been no diversion of any through steamer to the coffee trade. The reason that ship did not sail was that she hung back so far that she lost her place in the schedule, and we put her back on the schedule to San Francisco just a week because there was no sailing from San Francisco, and we had to drop her back a week and take the next schedule out.

The ACTING CHAIRMAN. And for what reason was that done?

Mr. SCHWERIN. Because they had been tied up at the Isthmus; we could not get our ships away from the Isthmus.

Now, it is a very funny thing about all this, gentlemen, that we had two ships loading coffee on the west coast of Central America—the *Aztec* and the *Hunslow*—and they would go down there with pretty close to 80,000 and 90,000 sacks of coffee; and I wired to Mr. Walker, the traffic manager, and told him I hoped there would be no delay in the movement of this coffee across the Isthmus, because last year there was great complaint of the method of getting coffee across the Isthmus, and a great deal of business was diverted to the Kosmos Line. In other words, the Kosmos Line carried about 33½ per cent of the total coffee crop, and there has been great competition every year between us as to who would get the bulk of the crop.

So this year I asked the traffic people of the Panama Railroad to be sure and help those ships out; and then all of a sudden this cry came up about the bulge of freight at the Isthmus, and I thought to myself, "Well, this is just a way of getting around the question of these two ships hanging up in the harbor of Panama." It looks to me as though

something might hang them up there, and this is the excuse that is given as the reason why they might not handle the coffee. It is a very funny thing that this thing developed all of a sudden, and these two ships that were bound there with coffee when the regular ships have left the Isthmus without any advice of any change in freight; and it is a mere traffic matter of one operating officer telling the other, when the freight is moving, to let him know if it is bulging, so that he can get it away. But instead of that, instead of any information of that kind, these telegrams apparently came out in public right away; the public knows all about them; it seems to be given out by some bureau of publicity and then we are held up to the ridicule of the whole United States for what they say we are trying to do to the Panama route. Now, it may be that the dirt has not flown quite as fast as it should fly, but I do not propose that the fur of the Pacific Mail Steamship Company is going to fly without having an honest statement made of the conditions.

The ACTING CHAIRMAN. You spoke a few moments ago about doing business for the Government at Panama, or receiving freight from the Government. Is that just exactly what you intended to say?

Mr. SCHWERIN. Well, I speak of the Government—I use the term “Government” and “Panama Railroad” interchangeably, as they are dependent upon each other—that is, I consider the Panama Railroad the Government and the Government the Panama Railroad.

The ACTING CHAIRMAN. That is what I was going to get at. In speaking of the Government, you mean the Panama Railroad?

Mr. SCHWERIN. Yes, sir; because I go to the traffic manager of the Panama Railroad Company, and he says, “We can not do that now, because the Government will not let us do it.”

The ACTING CHAIRMAN. Do you through bill from the Puget Sound ports to New York?

Mr. SCHWERIN. We do not bill from Puget Sound ports to New York; we bill from New York to Puget Sound ports. We issue a through bill of lading in New York City. I read in one of these investigations where Mr. Shonts, when he was asked the question whether they bill from New York to Puget Sound, said, “No,” in reply to a question of Senator Perkins. Now, that is another illustration that these gentlemen do not know what they are doing. We are, and have been for years, issuing through bills of lading from New York City, and from points interior of New York City, via the Isthmus of Panama, to San Francisco, to Portland, to ports on Puget Sound, and by rail even beyond those ports; and yet he says “No.”

The trouble is that these gentlemen have had so much to do in their legitimate business of the canal construction that they have simply thrown us off to one side, and then when things go wrong and there is going to be a row about it, why, “It is the other fellow.” That is all very fine.

I would like to read this letter here. Mr. King, our traveling auditor, while down at the Isthmus, spoke to Mr. Hunt about the men getting down to work and about the running of the trains. There is no way the men can get from Panama down to La Boca except by the trains of the Panama Railroad Company, there is no other communication, and they have to go back to Panama, where they live. He spoke to Mr. Hunt, of the Panama Railroad Company, about the run-

ning of trains, and he said he had complained so often to the train dispatcher without getting any satisfaction that he had ceased bothering about it and given up all hopes of maintaining a schedule.

Now, if you can get to it, gentlemen, that is the little hitch all the way along the line. "The working trains from Panama are scheduled to leave at 5.45 a. m., 12.45 p. m., and, when working nights, 6.45 p. m. The trains from La Boca to Panama leave at 11 a. m. and 6 p. m. The laborers commence knocking off about 10.30 and 5.30 to catch these trains, and it does not seem possible to stop them."

Senator ANKENY. In line with the inquiry of Senator Knox there about the remedy for this sort of thing, do I understand that they are double tracking this road?

Mr. SCHWERIN. I understand that they have relaid 70-pound rail on the present roadbed and are putting in switches—longer switches. I have not understood that they are double tracking now. I believe they contemplate double tracking at some future time.

Senator ANKENY. It is not done?

Mr. SCHWERIN. I can not say that. That is my impression, that they are putting in frequent switches and longer ones, and that they have now got heavier rail in—70-pound rail.

Senator ANKENY. If that be done, what effect would it have on this congestion?

Mr. SCHWERIN. Oh, everything of that kind will facilitate the movement of freight across the Isthmus; undoubtedly, sir. But even then, Senator, if they mix the cargo, will not segregate the cargo—

Senator ANKENY. That might occur on the Pennsylvania Railroad.

Mr. SCHWERIN. Anywhere; it will be just a hopeless task. Suppose all the freight that came into the Pennsylvania Railroad freight sheds was hopelessly mixed up when taken out of the car and mixed all along throughout the freight sheds, and then they came to deliver it. It must be sorted so that the people who deliver have the opportunity to get at it. That is the fundamental principle in the handling of freight. Now, what they want to do down there is to put the freight out on the dock, put it into the cars, send the cars across the Isthmus, tell us "There is your freight," and direct us to dig it out, load it, and get it out; but they forget that in this business it requires bills of lading, manifests, and accountable receipts. It requires a compliance with the Central American and Mexican laws and the laws of the United States on ships' manifests and custom-house papers, which have all got to be viséed by the different consuls, and the ship can not leave unless she has those papers, and those papers can not be made out until the freight is all checked into the ship, so that it is a different proposition altogether from handling railroad freight, and railroad men do not appreciate that. I have never found one yet that did, and I have been up against a good many.

Senator ANKENY. I do not think Senator Knox's design was to criticize particularly, any more than mine. We want to find the remedy, if we can, for this matter. Is not that your idea?

Senator KNOX. That is wholly my idea.

Senator ANKENY. We have no prejudice against anyone. We want to find the remedy for this congestion.

Mr. SCHWERIN. I do not think the remedy would be a very difficult one if they all wanted to pull together and were desirous of consider-



ing that commercial freight was to be handled as it always used to be handled—to take its turn in order with the canal freight—and if they were not under that peculiar nervous tension down there, that “the dirt had to fly,” and it does not fly and they can not make it fly; and they are finding some reason all the time to show that everything is being sacrificed to that one purpose.

Senator MORGAN. Has any quarantine that has been established for bubonic plague or yellow fever interfered with the operations of the Pacific Mail Steamship Line between San Francisco and Panama?

Mr. SCHWERIN. Yes, sir.

Senator MORGAN. For how long a time?

Mr. SCHWERIN. More than a year ago there was bubonic plague in Manzanillo, and we had the *Acapulco* go out of San Francisco, and she was anchored 4 miles off Manzanillo, and there was no connection with the shore except in the delivery of mails and a couple of passengers. She went to Panama, and they declined to receive the ship at Panama and she had to go back to San Francisco with her entire cargo in the ship; and after they declined to receive her in Panama all the other Central American coast ports declined to receive her on both the north bound and south bound voyages, and she took back this entire cargo to San Francisco.

Now, that brings up another point that our agent had up with Doctor Gorgas. Of course the question of competitive freight is a delicate one. The Kosmos Line is working to get all the business it can out of Central America to Europe via the Horn, and we are trying to get it for the Panama route. Now, if there is any bubonic plague or yellow fever or rumors of it started at the Isthmus, it is natural that the Kosmos Line will send that right through the newspapers of Central America, warning all shippers—they will not do it over their own signatures, you understand—that there is rumor of yellow fever or strike or plague at Panama; and the result is that the business will be diverted to the Kosmos Line.

Not a long while ago there was a man taken sick at Panama—he was a laborer on the docks—and our agent asked Doctor Gorgas if it was not advisable not to make this public until it was absolutely proven that the man had bubonic plague. Doctor Gorgas differed with him, and said that he thought it was necessary to give the widest publicity to even a doubtful case of bubonic plague. Now, the doctor does not care anything about the business of the Isthmus. He does not see the commercial side of that business in the slightest degree. He is looking at it entirely from a sanitary standpoint and does not see how much injury he does the connecting operating company at that point, and we do not see what particular gain there is in giving publicity to it until the case has developed.

Senator MORGAN. The point in this quarantine regulation up and down the coast is that the ports are blockaded, properly speaking, against the access of vessels that come from Panama?

Mr. SCHWERIN. We had the port of Puntarenas so that they would receive our ships, but they would put all the passengers on ten days' quarantine; but finally they withdrew that. At least we got rid of the passengers; whether they took them ashore and put them in quarantine I do not know. But while we were threatened in this last quarantine there, we really managed to get a clean bill of health and get the freight up and down the coast, because, as I showed some time

ago in the testimony, the freight coming into the Isthmus consigned to us during those four months moved about as it came in.

Senator MORGAN. Suppose the Government should enact a law to prohibit persons who are suspected of infection of bubonic plague, of yellow fever, or any other of the extremely dangerous diseases, from going out of that Isthmus, from going abroad at all; suppose the Government puts the men under duress and in confinement or restraint on the Isthmus, and prevented them from going out—would not that have a very modifying effect upon the quarantine proceedings?

Mr. SCHWERIN. No, sir; not the slightest.

Mr. MORGAN. Why not?

Mr. SCHWERIN. Because they would not know but what some person on a ship might have had contact with a person on shore, and they could not watch everybody, and they would not know but what that party that had contact on that ship would be just the one that might come ashore at their port. So they get hysterical the moment there is any bubonic plague noted anywhere in those countries, and I believe they have the same rights that we have. We have to suffer exactly the same thing in San Francisco and Honolulu with our steamers. They are just as rigid on that thing with us, absolutely the same, as those Central American people are, in the case of our steamers operating on that coast.

Senator MORGAN. According to the statements that you make about the dealings with that steamer that went up and down the coast there, the question of building the canal depends very largely upon the statement of some doctor that there is a case of bubonic plague on the Isthmus, or a case of yellow fever?

Mr. SCHWERIN. I noticed here some time ago that there was publicity given to every case of yellow fever on the Isthmus. I have gone through our company records and asked the old masters and officers, and I find that we have never lost anybody down on the Isthmus with yellow fever. We have had the boys get malarial fever once in a while, and when La Boca, this entrance to the canal, was opened and we handled the ships at La Boca instead of down the bay with lighters they were all very uneasy about going up there. But we insist upon their drinking our water. We have special water for everybody, and we are very rigid about their food and clothing and meals, and we never have had a sickness of any kind known as yellow fever. But the men do get malarial fever every once in a while down there, and they lay off and seem to get all over it in two months, and during that time they lay off the ship.

Senator DRYDEN. Is not this about the summation of the whole case as it relates to your interest: That the Commission, representing the Government, perhaps impatient, feeling, probably, that the American people might be impatient, have proceeded in their work before they had completed their organization, before they had developed a system, before they had settled, well-defined plans for prosecuting work, and that as a natural and almost inevitable consequence of that some confusion has arisen, temporarily at least, but confusion has arisen which has resulted, among other things, in the congestion which has occurred on this road, and that what remains to be done and ought to be done is now to complete their organization, to develop their system, to perfect their plans so that all will work smoothly and harmoniously?

Mr. SCHWERIN. That is exactly what the French did before they started in.

Senator DRYDEN. Is it not about what is required now by the conditions existing on the Isthmus?

Mr. SCHWERIN. Undoubtedly, Senator; the idea of building the canal should absolutely cease until they are in a position to do it.

Senator DRYDEN. And therefore, I suppose, we may infer that there has been no great waste of money, no great squandering of the funds of the Government, no great mistake made, but temporary errors owing to the haste which has been shown, which can be cured and overcome without any serious difficulty?

Mr. SCHWERIN. Well, Senator, if you have considered that I am here before this committee to criticise anything of that kind——

Senator DRYDEN. I do not; no.

Mr. SCHWERIN. I am here as a mother to protect her own; that is all. I have no desire whatever—I think that Mr. Shonts and Mr. Stevens are doing their best so far as the canal is concerned.

Senator DRYDEN. I did not mean that.

Mr. SCHWERIN. They are doing their best so far as the canal end of it is concerned. Now, the freight end is the end that I know about.

Senator DRYDEN. It was not my intention to put you in the attitude of unfair criticism at all.

Mr. SCHWERIN. Well, I hope that you will withdraw that, Senator, because it looked as though what I have said to-day might be interpreted in that way.

Senator DRYDEN. Well, if anyone got that impression from what I did say it certainly would be removed by what I say now—that I have no such intention and I did not so understand you. If there is a doubt left, I want to clear that up by saying that I have not so understood you at all in your testimony. But we are aiming to get at facts, to get all the light upon this subject that we can get, and it is only by getting the evidence and testimony of gentlemen like you, who are familiar with the different phases, that we can get the necessary information.

Now, as I understand it, what remains to be done is to perfect our system. We have gone ahead pretty fast, and we have entered upon the serious phases of this work before we had really perfected our plans sufficiently to do that.

Mr. SCHWERIN. That is right. The dirt was to fly the first week that they turned the canal property over; the "dirt was to fly."

Senator DRYDEN. That sentence had become rather hackneyed, and I did not care to use it. I had it in mind.

Mr. SCHWERIN. Pardon me for using it.

Senator MORGAN. About how soon is the Panama Railway to be in competition with the railway at Tehuantepec?

Mr. SCHWERIN. In next June.

Senator MORGAN. Is that likely to be an important competitor?

Mr. SCHWERIN. I think it will practically clean out all the American cargo that we now handle via the Isthmus, on account of being very much shorter, and undoubtedly they will have no other freight on that 175 miles of road than this New York freight, and they can devote their whole energies to putting it through, and they can reduce the time very materially, probably to twenty-three or twenty-four days, between New

York and San Francisco; and that simply means that all this freight is likely to go that way.

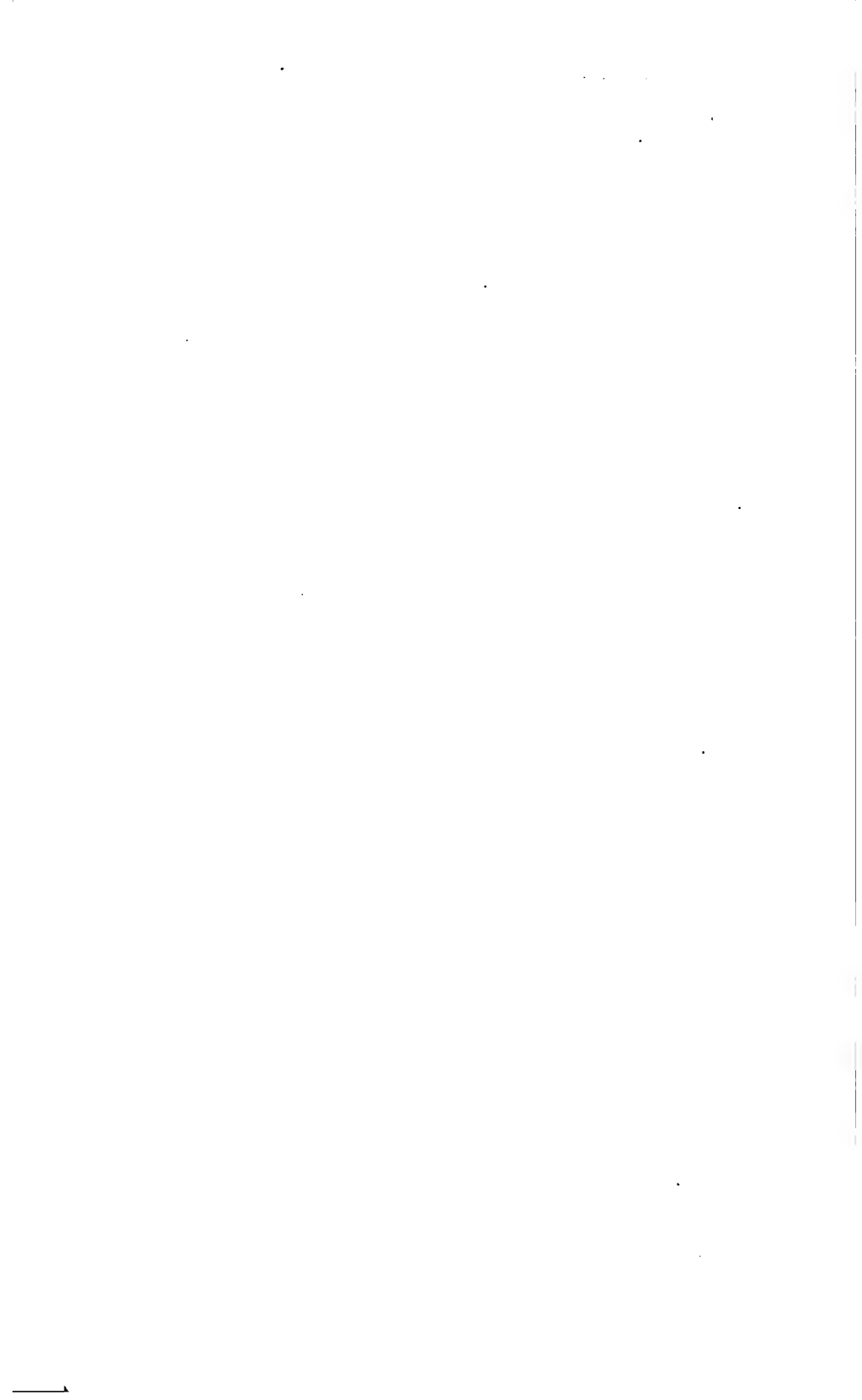
Senator MORGAN. Then you expect the Tehuantepec Railway to put the Panama Railway out of business?

Mr. SCHWERIN. Yes, sir; they will put us out, too.

Senator MORGAN. To put everybody out?

Mr. SCHWERIN. It will put us out. I do not see any help for it. Of course no one can tell, in the traffic business, how these things will switch; you may study it as much as you please. Under the present arrangement with the American-Hawaiian Line they propose to run the steamers from Salina Cruz to San Francisco and to the islands and back to Salina Cruz. That does not provide for any freight originating on the Pacific coast to New York. It provides for taking freight from New York out, but none back. Now, it might be that we might work in there and do that business and still hang on. The shippers are nearly all sick of the Panama route, gentlemen, and will withdraw their patronage very rapidly, except those that are actually compelled to use that route in Central America and Mexico. There are lots of large shippers in San Francisco that have withdrawn their patronage.

(Mr. Schwerin having finished his statement, he was excused, and the committee went into executive session; after which an adjournment was taken until Monday, February 5, 1906, at 10.30 o'clock a. m.)



# ISTHMIAN CANAL.

COMMITTEE ON INTEROCEANIC CANALS,  
UNITED STATES SENATE,  
*Washington, D. C., Monday, February 5, 1906.*

The committee met at 2.30 o'clock p. m. (no morning session having been held).

Present: Senators Millard (chairman), Kittredge, Dryden, Hopkins, Ankeny, Morgan, and Simmons.

Present, also, John F. Wallace, esq.

## TESTIMONY OF JOHN F. WALLACE, ESQ.

Mr. Wallace was duly sworn, and testified as follows:

Senator KITTREDGE. State your name, Mr. Wallace.

Mr. WALLACE. John F. Wallace.

Senator KITTREDGE. And what is your age?

Mr. WALLACE. I am 53 past.

Senator KITTREDGE. Where is your residence?

Mr. WALLACE. In Chicago.

Senator KITTREDGE. What is your profession?

Mr. WALLACE. Civil engineer and railway manager.

Senator KITTREDGE. Where were you educated?

Mr. WALLACE. At Monmouth College, Illinois.

Senator KITTREDGE. When did you graduate?

Mr. WALLACE. I did not graduate. It was a classical school, and I was not able to get all of my engineering education there, and I had to supplement it by private instruction. I dropped those studies that I did not think were necessary, among which were Hebrew and one or two things of a theological nature, so that I did not take a diploma from it, although afterwards I was given a degree from the college.

Senator KITTREDGE. Now you may take your business career, in a general way, from that time until you became connected with the Isthmian Canal Commission.

Mr. WALLACE. Between 1871 and 1876 I was engaged as an assistant engineer on the improvements of the Mississippi River, principally on the Rock Island rapids, under the United States Engineer Corps organization. My work consisted in rock excavation under water, and river and harbor surveys. During that time I was generally the executive officer in charge of the working parties that conducted the surveys, and on the Rock Island rapids, and on the upper Mississippi River, and on the surveys for the guard lock on the Keokuk Canal at Montrose.

Later I was employed as chief engineer and superintendent of construction of what is now the Iowa Central Railroad in Illinois. I constructed that line from Peoria, Ill., westward to the Mississippi River, and also had charge of its operation. Later on I had charge of the construction of the steamboat transfer over the Mississippi River at Keithsburg, Ill., and was associate engineer on the construction of a

bridge at that place; and later, as master of transportation, had charge of transportation on 200 miles of the Iowa Central between Oskaloosa, Iowa, and Peoria, for a number of years until the autumn of 1886.

After that I was engaged in work for the Union Pacific. Later I was employed as bridge engineer for the Atchison, Topeka and Santa Fe Railroad, and had charge of the construction of the bridge over the Missouri River that was constructed on the Chicago extension of that line. I also designed the piers and was connected with the construction of the bridge over the Mississippi River at Fort Madison, and later wound up the business matters involved in the construction of this bridge. I also had charge of the river rectification works to control the Missouri River for 5 or 7 miles above the Sibley Bridge, and also of the Mississippi in the vicinity of Fort Madison, Iowa.

In 1889 I had charge for the Atchison, Topeka and Santa Fe Railroad, and the Illinois Central Railroad of an entrance and terminal into the city of Chicago, letting in the Santa Fe, and also the western lines of the Illinois Central Railroad, including the revision of the alignment and terminals of the Chicago and Alton Railroad.

During the time I was in Chicago I was connected also with Mr. E. L. Corthell, a consulting engineer who was engaged in a general engineering business, which consisted of terminal railway work in Chicago, the construction of the Merchant's Bridge at St. Louis, the improvement of Tampoco Harbor, belt railroads at New Orleans and Memphis, and various engineering works throughout the country.

In January, 1891, I was employed by the Illinois Central Railroad, and designed the World's Fair transportation facilities in the city of Chicago used by that company, including the elevation of the main tracks of the Illinois Central Railroad through the Hyde Park district of Chicago.

On March 1, 1892, I was appointed chief engineer of the Illinois Central Railroad, and had charge for seven years of the physical condition of that property, embracing altogether, with both its controlled and operated lines, about 5,500 miles of railroad. This embraced the construction of branch lines, the building of bridges, and a revision and planning of various railway terminals, grade reductions, double tracking, buildings (including their new stations at Chicago and New Orleans and Memphis), and also included the wharf and dock facilities at New Orleans, the lake-front improvements in Chicago, various transfer works at points where it was necessary to transfer cars across rivers, various river-protection works, and also included and embraced all the engineering work connected with the road, including the maintenance of tracks and structures.

From January 1, 1898, down to June 1, 1904, I filled the various offices of assistant second vice-president, assistant general manager, and general manager of the Illinois Central Railroad Company and the Yazoo and Mississippi Valley Railroad Company. They were two corporations that were owned by the same parties. In the two latter positions I had charge of the entire operating department of the system. That embraced the construction, engineering, transportation, and machinery departments and all of the operating departments except the traffic department—the latter department being the one which solicits the business, it being my business to provide the railroad and maintain it and operate it to handle the business which the traffic department secured.

I would like to state here, in order to show the magnitude of this

work, that each year for several years I had under my general supervision in the construction, machinery, maintenance, operation, and transportation departments the responsibility for the expenditure of more money than it will ever be necessary to spend in any one year on the Panama Canal during its construction even if the sea-level plan is adopted—that is, in the yearly expenditures of that amount—and carried on the pay rolls of these departments—

Senator HOPKINS. What was the amount that you expended?

Mr. WALLACE. Over \$30,000,000 a year.

Senator DRYDEN. For how many years?

Mr. WALLACE. That would vary. It ran from seven to ten million for maintenance and construction in my earlier experience up to over thirty million a year at the time that I left the road.

There were carried on the pay rolls of that company—that is, pay rolls that went directly through the office that I had charge of, and to which my name had to be attached—the names of four to five thousand employees. That did not include, however, the employees that were under contractors, which probably ran each year from ten to twenty-five thousand more, depending upon the amount of contract work which was carried on under our direction. The scope of this experience was not only technical, but was also of an administrative and executive nature.

I would like also to state here that I am past president of the American Society of Civil Engineers, and also of the Western Society of Civil Engineers; and that I was one of the founders and for two years president of the American Railway and Engineering and Maintenance of Way Association, and am also a member of the Institution of Civil Engineers of Great Britain.

That is, briefly, my record up to June 1, 1904.

Senator KITTREDGE. Is that the date on which you became connected with the Isthmian Canal Commission.

Mr. WALLACE. Yes, sir; that is the date from which my appointment as chief engineer of the Walker Commission commenced.

Senator DRYDEN. You were not connected with the Chicago disposal system?

Mr. WALLACE. No, sir.

Senator KITTREDGE. What were the terms of your employment by the Canal Commission?

Mr. WALLACE. To go back a little, if you care to hear it—

Senator KITTREDGE. We will be glad to hear whatever you have to say.

Mr. WALLACE. When the Spooner bill was first passed, or about the time it was being considered, quite a number of my friends suggested to me the propriety of going on the original Commission; and I gave it some consideration at one time, and even went so far as to permit them to introduce me to various men that were influential. After further consideration I decided that I did not care to become associated with the work in that capacity and give up my railroad work.

In February of 1904 I was in Washington at a hearing before the Interstate Commerce Commission in regard to some controversy over freight rates, and Mr. Fish, our president, was also here, and at that time he had several conferences with Admiral Walker, and several names were mentioned to me of possible commissioners from the South, and I was asked to state which of the various names presented was preferable for the position, and I did so recommend Major



Harrod. After I left Washington I received a letter from Mr. Fish, in which he said that my name had been considered for the position, and he transmitted to me a copy of a letter that he had written to Admiral Walker in regard to it, which, with your permission, I would like to submit for the record.

Senator KITTREDGE. You may do so.

(The letter referred to is as follows:)

NEW YORK, *February 17, 1904.*

MY DEAR ADMIRAL WALKER: I am favored with yours of the 16th instant and am glad that you join with me in thinking so well of Major Harrod.

As to Mr. J. F. Wallace, the general manager of the Illinois Central Railroad, while candor compels me to say that I think he would be a most excellent man for the Commission, I must add that if accepting that position would interfere with his work on the railroad I would have to say no in reply to your inquiry as to my being willing he should serve. I do not, however, want to stand in Mr. Wallace's way, and if his services on the Commission would not, in his own judgment, interfere with his work on the railroad, I would most heartily favor his appointment.

There is no professional engineer in my acquaintance who, I think, has in a higher degree than Mr. Wallace the especial commercial and diplomatic tact which I conceive will be required from the members of the Commission. He also has a very rare capacity in dealing with men, whether they be above him, his peers, or under him. It goes without saying that he is upright and downright. If, therefore, Mr. Wallace thinks he can go on with his work on the railroad and accept the commissionership, I should be very glad to have him do so, but I can't willingly consent to have him leave the service of the railroad company.

Very truly, yours,

STUYVESANT FISH.

Rear-Admiral JOHN G. WALKER,  
*Washington, D. C.*

Mr. WALLACE. In that letter Mr. Fish objected to my becoming connected with the Commission, although he indorsed me for it, if it would interfere with my connection with the Illinois Central Railroad; but he left it to me to decide as to whether I desired my name mentioned in connection with it or not. I thanked him for his kindness and told him that I felt much more gratified at the expression of his good will than I would have been if I had received the Commissionership, and that incident was closed.

In May I received a copy of a letter from William Barclay Parsons, which I would like to read to you—it is very short—as it gives you, in a way, the idea that was in the minds of the Commission as to the scope of the duties of the chief engineer. These various papers I am referring to I would like to submit.

Senator HOPKINS. They have a direct bearing, Mr. Wallace, have they, on the question—

Mr. WALLACE. They have a direct bearing as to what will follow.

Senator HOPKINS. All right.

Mr. WALLACE. This letter was dated at sea between Cuba and Colon, April 3, 1904.

Senator KITTREDGE. This is the letter from Mr. Parsons?

Mr. WALLACE. This is the letter from Mr. Parsons. [Reading.]

"MY DEAR MR. WALLACE. On this trip from New York to the Isthmus, the Commission has been giving earnest consideration to the selection of a chief engineer, realizing that a very great measure of our success will depend on that official.

"The man for this position must possess exceptional qualifications. He must not only be an engineer, but must also be an administrator and an executive. He must have mature judgment, and yet energy of accomplishment. He must be well known and favorably known. Among the men who have been considered as so qualified, naturally your name occurs, and the Commission desires to know whether, if a tender of this position were made, it would be seriously considered by you.

"Owing to a previous professional engagement with the British Government, I will be obliged to leave Panama in advance of the other members of the Commission and will arrive in New York on April 19, so as to sail for England on April 26. The other members of the Commission and I would very much like to have you and me meet to talk this matter over so that I could communicate with them prior to my leaving for Europe. Would it be possible for you to be in New York sometime before the dates mentioned, on, say, the 21st or 22d of April? If you can do this we can discuss the whole thing, and I can give an answer to my associates.

"I can imagine that you will be disinclined to think of severing your connection with the Illinois Central, but on the other hand you would attach your name to the greatest piece of construction ever undertaken.

"Hoping that you will be able to meet me, I am,

"Yours sincerely,

"WILLIAM BARCLAY PARSONS."

That was the introduction to the Commission which afterwards resulted in my appointment.

My object in presenting these papers is to show this committee that I did not seek the position, as has been stated publicly on several occasions.

Senator HOPKINS. If the balance of that letter has no bearing on this matter I would suggest that it is unnecessary to put it in the record.

Mr. WALLACE. That is the essential part.

Senator HOPKINS. The reason I suggest that is that our record of going to be large anyway.

Senator KITTREDGE. I suggest that Mr. Wallace submit copies of letters he desires inserted in the record, and the committee will determine what parts shall be inserted.

Mr. WALLACE. Yes, certainly. You can take what parts of them you desire and what is not essential can be omitted.

At the close of this letter Mr. Parsons suggests an interview in New York with him in a preliminary way, as he returned to this country a week before the regular Commission did and they delegated him to have a preliminary conference with me.

As I was in New York at the time designated I called on Mr. Parsons, and in an interview stated to him that the question of my giving favorable consideration to the acceptance of the position of chief engineer depended entirely upon terms and conditions. [Reading:] "Mr.

Wallace informed Mr. Parsons that if the Commission were willing to give him a free hand in the conduct of the work under the general supervision of the Commission, permit him to select such assistants as he might require, and also give him full control over all details connected with the work, he would be willing to give the matter favorable consideration. Mr. Parsons replied that he had no doubt the Commission would be willing to tender the position subject to the conditions named."

Senator DRYDEN. What is that you are reading from now?

Mr. WALLACE. That is just a memorandum that I had to refresh my memory.

Senator KITTREDGE. Were the terms agreed to?

Mr. WALLACE. After the Commission came back I was invited to appear before it in Washington, and I came on from Chicago. On Wednesday, May 4, I first appeared before the Commission, and naturally the first question that I asked them was as to the terms and conditions that they were willing to offer me. I wanted their idea as to how they proposed to conduct this work, and, not being able to get any expressions out of them as to the conditions, they asked me to submit to them my ideas of how the work should be conducted, which I did.

Senator HOPKINS. Did you do that in writing or verbally?

Mr. WALLACE. No; that was verbal, entirely. I particularly stated that I could not consent to take the position except on the consideration that I would not take orders from any one individual, or be under the control of the various Commissioners in their individual capacity; that I would be willing to carry out any instructions which the Commission as a body might give me in the conduct of the work; that I imagined that the only benefit that my services could possibly be to the United States Government or to the Commission in that work would be so far as I might have ideas that were original, or so far as the methods which were my methods and the ways which were my ways could be applied to that work to produce results.

If I was simply to take charge of the work and conduct it according to the ordinary governmental methods or to the regulations of governmental departments, and use the methods which had always been used in the conduct of public works, my services would be of no avail at all; that it would be much better to secure some person who was familiar with those methods and was accustomed to those ways. And I was particular to state that what I apprehended more than anything else was that each individual member would have his own ideas about special things, and that I would in a short time be endeavoring to serve seven masters instead of one.

After quite a conference on that subject, the Commission not giving any expression of their ideas except occasionally asking me a question, I bid them good day and withdrew, and I never expected to be called back again. I thought that would settle it, because I felt the necessity of talking so plainly that I did not imagine that the Commission would care to have that kind of a man as their servant; but the next day Admiral Walker called me in and stated to me the salary which they had proposed to pay me. Although it was not the one that I had named in the tentative proposition, I told them that the salary did not cut any figure; that the thing that I was anxious about was the conditions, because I felt that the conditions were those that were prime requisites to obtaining efficient results. He wanted to know if I would

accept the position. I asked him if he had conferred with the President, and he said the President understood the situation in a general way. I told him that I would like to reserve my decision until he could personally see the President and inform him of the conditions that I had made. About a week afterwards I received a letter from him in which he said they were satisfactory, and I then accepted an appointment, which was simply a plain letter telling me that I was engaged as chief engineer.

Senator DRYDEN. Your proposition was submitted to the Commission as a body, sitting as a body?

Mr. WALLACE. As a body.

Senator DRYDEN. Not to an individual or two individuals?

Mr. WALLACE. No. I think they were all present except—I do not remember; their records show. I think William Barclay Parsons was the only Commissioner not present.

The CHAIRMAN. Was that meeting in New York?

Mr. WALLACE. That meeting was here in Washington.

Senator DRYDEN. And you understood, when you received this letter from Admiral Walker, that he had submitted your proposition to the President, and it had been approved by the President.

Mr. WALLACE. He said so. This is an extract from his letter. He says:

“I saw the President last evening and told him of your appointment by the Commission as its chief engineer. He expressed great satisfaction, and heartily approved of the course of the Commission.”

Now, this is the letter of appointment which I had received, dated June 14, 1904. This is the formal letter that I got. In the meantime I came back and reported for duty here, and was in conference with the Commission at Washington when I received this letter, which was my formal commission or letter of appointment:

“You are hereby appointed chief engineer of the Isthmian Canal Commission for service on the Isthmus of Panama at a compensation of twenty-five thousand dollars (\$25,000) per annum, to take effect from the 1st day of June, 1904.

“You will sail for Colon on board the Panama Railroad steamer *Allianca*, leaving foot of West Twenty-seventh street, New York, on Tuesday, June 21, and on your arrival on the Isthmus of Panama you will report to Maj. Gen. Geo. W. Davis, U. S. Army.

“Transportation will be furnished you from New York to Colon.

“Respectfully,

“J. G. WALKER,  
“Chairman of Commission.”

That was all that was in that letter of appointment.

Senator KITTREDGE. How long did you continue in the service of the Commission as chief engineer?

Mr. WALLACE. I continued in the service of the Commission as chief engineer until the 28th of June, 1905, although in the meantime there was a change. I received a formal commission as chief engineer on the reorganization of the Commission in April, 1905, together with a commission as Commissioner.

Senator KITTREDGE. Then, from the time you have stated until the 3d of April, 1905, you acted solely as chief engineer of the Canal Commission?

Mr. WALLACE. Yes, sir.

Senator KITTREDGE. And on that date you were appointed a member of the Canal Commission?

Mr. WALLACE. Yes, sir.

Senator KITTREDGE. And continued as chief engineer as well?

Mr. WALLACE. Yes; I had two commissions. They were separate. One was simply the appointment as chief engineer, without any qualifications, and the other was as Commissioner, which was to remain in effect until the close of the next session of Congress. Of course that was subject to confirmation by the Senate.

Senator HOPKINS. Your commission as chief engineer came from the Commission itself, and the other from the President, did it not?

Mr. WALLACE. No; originally all the commission I had as chief engineer was this letter which I have read; but the last time there were two independent commissions, both signed by the President. That was in April.

Senator MORGAN. Did you continue to hold the office of chief engineer after you became a Commissioner?

Mr. WALLACE. Yes, sir.

Senator MORGAN. By order of the board?

Mr. WALLACE. By order of the President.

Senator MORGAN. Was that order in writing?

Mr. WALLACE. Yes, sir.

Senator MORGAN. On the minutes of the company?

Mr. WALLACE. The minutes do not show that; that was in the form of a regular commission issued by the President, the same as my appointment as Commissioner.

Senator MORGAN. What was your salary as chief engineer?

Mr. WALLACE. It was \$25,000; but on the new appointment it was reduced to \$17,500, and \$7,500 was given me as a Commissioner.

Senator MORGAN. So that it rounded out the same?

Mr. WALLACE. It rounded out the same amount that I had received before; yes.

Senator KITTREDGE. How long did you continue in the capacities you have last mentioned?

Mr. WALLACE. Until the 28th of June.

Senator KITTREDGE. And then what happened?

Mr. WALLACE. At this point I would like to read a statement, if you will kindly let me.

Senator MORGAN. Let me ask you a question first. Please state again the date of your appointment as chief engineer.

Mr. WALLACE. Originally it was June 1, 1904.

Senator MORGAN. Then your appointment as a Commissioner?

Mr. WALLACE. That was in April. I do not remember the exact date. My recollection is that it was the 1st of April or the 2d of April.

Senator MORGAN. 1905?

Mr. WALLACE. 1905—the 1st or the 2d of April.

Senator MORGAN. So you worked as chief engineer from June until April?

Mr. WALLACE. Yes.

Senator MORGAN. And after that as Commissioner and chief engineer?

Mr. WALLACE. As Commissioner and chief engineer; yes.

Senator HOPKINS. Until the following June?

Mr. WALLACE. Until the following June; yes.

Senator KITTREDGE. You may proceed.

Mr. WALLACE. Now, before I describe that last interview, I would like to read this statement.

Senator KITTREDGE. You have that privilege.

Mr. WALLACE. It is addressed to the chairman and to you, Senators.

"I take it for granted you are familiar with the violent attack upon me which Secretary Taft and Mr. Cromwell gave to the newspapers last June, and my first words therefore must be to ask you to suspend your judgment upon the justice of that attack until after I have had an opportunity to explain to you why I think it was absolutely uncalled for and unjustifiable.

"I will speak of it with as little warmth as possible, seeing that it might have prevented me from even earning bread for myself and those dependent upon me; and remembering also that after I had spent more than thirty years in an honorable calling without a word ever uttered against my good name, I suddenly found myself placarded throughout the country as utterly lacking in personal and professional honor. Now, my honor is as dear to me as that of Secretary Taft's and Mr. Cromwell's could be to them, and I have kept it quite as unsullied.

"The only basis pretended for this attack upon me was a difference of opinion between Secretary Taft and Mr. Cromwell on the one side and myself on the other as to my right to decide for myself when I thought the welfare of the enterprise and my own welfare justified me in resigning my position.

"My appointment named no length of time I was to hold it, and I was liable to be dismissed at any moment by telegraph. Such being the case, I believed then, and believe now, it was my undoubted personal right—and I believe every reputable engineer must be of the same opinion—to resign it whenever I thought it necessary to do so; provided, of course, that I took abundant care that the work in my charge would suffer no harm by my resignation.

"I had taken every precaution and made every necessary arrangement to that end before leaving the Isthmus, and, having done so, I never dreamed that anybody would dispute my right, legal or moral, to ask that my successor should be appointed when it was convenient to do so.

"I came north to have a private talk with Secretary Taft, in which I intended to fully explain the real reasons for my resignation, to put myself at his disposal, to assist him in securing, if he desired, my successor before he started on his trip, and to satisfy him that Mr. Dauchy, whom I had left in charge, was just as competent as I was to conduct such work as could wisely be done until Congress decided upon the type of canal.

"The opportunity for this private talk was denied me, and when I found myself confronted with both Secretary Taft and Mr. Cromwell I contented myself with giving as a reason for resigning the larger compensation I hoped to secure in another employment. I did so because I assumed that reason would be accepted as sufficient for the time being and avoid the discussion of other reasons in the presence of Mr. Cromwell. But I soon found that they had both come to the interview determined to discredit me and if possible to destroy my reputation, simply because I insisted upon resigning when I had become convinced some other man in my place could render better service to

the enterprise under the conditions which with my concurrence had been created."

I want to admit that freely.

"Several days thereafter the attack was given to the newspapers, and I at once published a statement in reply, giving the truth as I understood it, which statement I beg to submit as part of my testimony."

That statement, however, is too long to read.

"I also desire to freely and frankly place before the committee, in the same spirit as actuated me in my recent appearance before the board of consulting engineers, all the information and facts in my possession resulting from a year's experience on the Isthmus in active charge of the different kinds of preparatory work, and during the crucial period of its organization under American control, together with my deductions made therefrom; and, as well, to assist the committee with my professional knowledge and study of the questions of type of canal and methods of administration.

"I will therefore be glad to answer any questions which any member of the committee desires to ask me, and will be grateful for the opportunity to reply to such criticisms as may have been publicly made in any way affecting my honor as a gentleman, my loyalty as a citizen, or my reputation as an engineer."

(The statement above referred to by Mr. Wallace was directed by the committee to be made a part of the record, and the same is as follows:)

"The primary causes which led me to tender my resignation as chief engineer of the Isthmian Canal Commission were underlying and fundamental, and I must emphatically resent the charge that my motive in leaving the work was a financial one.

"A careful consideration of the entire subject had brought me to the decision that I should disconnect myself with the work at the earliest possible date that it could be done without embarrassment to the Administration or injury to the work. It is unnecessary to state the reasons for this decision, except that in fairness I should say that they involve no criticism of any act of the President or the Secretary of War.

"My final decision was arrived at as the result of the six days' uninterrupted thought which I was able to give the subject in all its bearings during my voyage from New York to Colon in May. Furthermore, I had pledged myself to my family to give the matter of my resignation as chief engineer, or of any position which would require my continuous residence on the Isthmus, serious consideration.

"It was at this psychological moment that I received a cablegram from New York offering me a business opportunity which I was bound to consider. I therefore immediately cabled the Secretary of War requesting a conference and arrived in New York for that purpose on Thursday, June 22.

"In the meantime I had addressed a letter to the Secretary in which I confirmed the request for an interview and also requested my annual leave of absence, which was a part of my original understanding with the Isthmian Canal Commission, and which I had requested from Admiral Walker in March to take effect at our mutual convenience

sometime later in the season, which request, however, was not complied with or answered, owing probably to the sudden change made in the Commission on April 1.

"On my arrival in New York I was met by Mr. William Nelson Cromwell, who stated that he was delegated by the Secretary to arrange for a special interview with me, and asked if I would meet him at the Manhattan Hotel at 10 a. m. Sunday, June 25.

"While Mr. Cromwell treated me with the suavity and courtesy for which he is noted, he endeavored to draw from me my reasons for desiring to see the Secretary. I told him frankly that I did not consider it would be proper for me to discuss the matter in advance of my interview, and I also requested him to arrange for me with the Secretary that the interview should be absolutely private and that no one but the Secretary and myself should be present.

"On arriving at the Manhattan on Sunday I was met by Mr. Cromwell, who ushered me into the Secretary's private apartment, accompanied by my son. Assuming that arrangements had been made for a strictly private interview, my son withdrew, expecting Mr. Cromwell to do the same. However, the Secretary in rather a peremptory manner directed Mr. Cromwell to remain.

"This action of course caused irritation and apprehension on my part that the interview would be unpleasant and unsatisfactory; and the irritation under which the Secretary was evidently laboring had a tendency to prevent that calm and dignified consideration of the question in all its bearings which should have been given it.

"If the Secretary understood me to say that I had accepted a position in New York, he labored under a misapprehension. I did state to him that I desired to accept one, but under such circumstances and conditions and at such time as would cause the least embarrassment to the Administration and the least injury to the work, and that I was even willing to go to the extent of remaining for an indefinite time on the Commission should he desire my counsel and advice in arranging for the change, assisting in preparing plans for submission to the advisory board of engineers in September, or in the further consideration of the question by the Administration or Congress during its next session.

"Much to my surprise he indignantly spurned my suggestion and took the position that I was compelled, under what he called my contract, to remain in charge of the Isthmian Canal, regardless of circumstances or conditions, until the completion of the work, and spoke in such a manner as to outrage my feelings to such an extent that further discussion of the reasons for my action was out of the question.

"I did not seek the position of chief engineer of the Isthmian Canal Commission, and, considering my salary as general manager of the Illinois Central Railroad Company and my other sources of earnings, my financial condition was not improved by my acceptance of the position, and it was with the greatest reluctance that I did so.

"While it was my own expectation that I should continue my connection with the work, it did not occur to me that I was not free to withdraw if justice to myself and my family and to my reputation as an engineer required me to do so. It was not only my right but my duty to give the matter the most careful consideration in all its bearings, considering not only the general situation as it affected the work, but my family, personal and business relations, and all the various



factors entering into the problem, and I could not concede the right to the Secretary of War or anyone to dictate my decision. The only debatable questions were the details as to putting my decision into effect, and while I stated to the Secretary what my desires were, I told him that I was perfectly willing to conform to his wishes as far as possible as to the time and manner of my withdrawal.

"It was this suggestion to which he chose to refer as a 'dicker.' To that statement I naturally took exception, particularly as he stated that he did not care for any reports that I might make summarizing and analysing the results of a year's hard work on the Isthmus; also, that he did not value my counsel and advice, and that the only service he desired was that of a constructing engineer on the Isthmus.

"No intimation of friction between the Secretary of War and myself would have become public if it was not accidentally or otherwise given out by the persons in attendance at the conference on Sunday other than myself, and I desire to state emphatically, and the representatives of the press will bear me out, that I have refused absolutely, either directly or indirectly, to be interviewed, and have remained silent under the innuendos which have been daily published since the conference, and would not have made even this statement at this time if it had not been for the severe strictures contained in the published statement of the Secretary, which I consider unjust and uncalled for and which could serve no useful purpose.

"In regard to the situation at Panama, at no time during the progress of the work could my relations have been severed more opportunely than now, and with less damage to the work. A complete organization of departments and bureaus has been effected. Mr. W. E. Dauchy, a gentleman of high engineering attainments, who has been chief engineer of the Chicago, Rock Island and Pacific Railroad Company, and who had occupied the position of division engineer in charge of the Culebra division, was upon my leaving the Isthmus placed in charge of the work as acting chief engineer, he having occupied a similar position during my absence from the Isthmus at the call of the Secretary, during the month of April, and having satisfactorily conducted the work through the demoralization attendant upon the change in organization.

"The only work which can be performed until after Congress at its next session shall take some decided action is the gradual increase in the organization and the addition of units of machinery along a well-defined plan which Mr. Dauchy thoroughly understood.

"The simple work of excavating at Culebra and preparing for further excavation are the only things which could be done pending a final decision from Congress. The only possible benefit that my personal service as chief engineer could have been to the work was such as might be due to the purely personal element, which would have been largely supplied by my continuance with the work in an advisory capacity. As far as the actual engineering and construction work was concerned Mr. Dauchy was fully as capable as I.

"Despite all of the discouragement and obstacles which have surrounded this work (as the Secretary knows and has practically stated in his letter) I endeavored to faithfully and vigorously perform the duties of my office and have never complained or criticised my superiors or any one connected with the work, and, as stated in the Secretary's communication, I have never requested additional emoluments

or asked any favors of a personal nature, and any suggestions which I may have made (as his statement will bear me out) have been made because I considered them necessary for the increased efficiency of the work.

"The reorganization of the work in April was not considered ideal, but as it was such a decided improvement over the existing condition of affairs and seemed to be all that could be done under existing laws I gave it my hearty approval.

"I have made no criticism of personnel or individuals, but do believe that the obstacles due to the governmental methods required by existing laws are so serious that they will have to be eliminated if the American people are to see the Panama Canal constructed in a reasonable time and at a moderate cost.

"My only desire in this statement has been to protest against what I consider the unjust denunciations of the Secretary, and to fully inform my personal friends and professional brethren, who have been familiar with my career, of the essential facts relating to this matter. I emphatically disclaim all responsibility for the various statements recently published alleged to have been made by so-called friends."

In regard to the type of the canal I would prefer to be excused from presenting any opinion until I can have access to the reports of the advisory board and the Isthmian Canal Commission, which I understand, are divided in their views, and one of which favors one type of canal and the other the other. In other words, I think I can give you better service after having an opportunity to see those views than before.

Senator KITTREDGE. Until the President shall have submitted to Congress the reports of the board of consulting engineers, the Canal Commission, and such recommendations as he makes, the committee will not take any testimony upon the subject of the type of the canal, and, I assume, will not ask any questions upon that subject. So that, Mr. Wallace, if you in your testimony will refrain from referring to that subject, we will be very happy to hear you on all other matters connected with the construction of the canal, the government of the Canal Zone, and the management and operation of the Panama Railway Company and the steamship company, and to have your views and advice upon all those questions.

Senator HOPKINS. Before you go into those subjects, Mr. Wallace, have you anything further to say upon the point just suggested by you in your written statement?

Mr. WALLACE. Only this: At the time of the appointment of the first Commission there was a letter addressed by the President to that Commission that outlined in a way their tenure of office, and that letter is a public document in the files of the Isthmian Canal Commission.

Senator KITTREDGE. Was the letter to which you refer written by the President?

Mr. WALLACE. Yes, sir; that was a letter that was given to me a short time after I was appointed, to explain my tenure of office; it is dated March 8, 1904. It is quite long, and I will only read an extract; but I would like to read the extract on account of its bearing on my own matters.

Senator KITTREDGE. You may do so. I think that all the members of the committee are familiar with that letter, however.

Senator MORGAN. Who is the letter from?

Mr. WALLACE. From the President.

Senator MORGAN. We ought to have it all.

Senator HOPKINS (to Senator Kittredge). Yes; but if there is any of it that has a bearing on his case, I think he is entitled to put it in the record.

Senator KITTREDGE. Oh, yes; undoubtedly.

Senator HOPKINS. And if it had any influence upon his mind, I think he has a right to put it in for that reason.

Mr. WALLACE. It had this influence on my mind—that I thought that it was the desire to impress upon us all that we had no tenure of office there, and had the right of withdrawal at any time—that is, I mean, with proper notice, etc.

Senator MORGAN. Suppose you read the extract that you refer to which produced that impression upon your mind.

Mr. WALLACE (reading): "I believe that each one of you will serve not merely with entire fidelity, but with the utmost efficiency. If at any time I feel that any one of you is not rendering the best service which it is possible to secure"—

Now, what struck me about it was that it did not mean ordinary duty, but the best that could be procured [reading]—

"I shall feel called upon to disregard alike my feelings for the man and the man's own feelings, and forthwith to substitute for him on the Commission some other man whom I deem capable of rendering better service."

That condition was carried out absolutely at the time the old Commission was removed and the new Commission was appointed.

"Moreover, I shall expect if at any time any one of you feel that the work is too exhausting and engrossing for him to do in the best possible manner that he will of his own accord inform me in order that I may replace him by some man who to the requisite ability joins the will and the strength to give all the effort needed. But so long as you render efficient service of the highest type in the work you are appointed to perform you may rest assured of my hearty support and backing in every way.

"These are the conditions under which you have been appointed and under which I shall expect you to proceed. I shall furthermore expect you to apply precisely the same principles in the choice and retention of the subordinates who do the work under you as I have applied to your choice and shall apply in your retention."

That is only an extract from it. The letter is quite long and full.

Senator DRYDEN. Mr. Wallace, before you accepted this position you laid down to the Commission some pretty clearly defined conditions?

Mr. WALLACE. Yes, sir.

Senator DRYDEN. Among which was that you were not to accept orders or be interfered with by any individual member of the Commission, but that you would carry out the policy which the Commission as a body agreed upon. I would like to ask you whether that condition laid down by you was violated; and if so, whether it had any influence in determining you to resign from your position?

Mr. WALLACE. Those conditions were practically—well, I do not say that they were willfully violated, but it seemed impossible for the first Commission to conduct its work and regard them.

When I received that letter from Admiral Walker I raised the point with him whether my reporting to General Davis, who was stationed

there as a Commissioner and as governor, meant that I was to report to him in the way of receiving orders from him. He told me explicitly "No." He said he understood what the arrangement was between us, and that I was simply to report my arrival there. He said: "General Davis has a commission from the Commission putting him in charge of the engineering and construction work on the Isthmus until the chief engineer arrives."

When I went there and reported to General Davis he called my attention to this order, and the issue was immediately raised between us as to the expiration of that commission. He said, as I recollect his statement, "This is my commission as managing representative. Now," he said, "you are here, and I am going to turn over the engineering construction work to you, but the powers that are granted to me under this commission I still retain, which practically leaves me in charge of the work, as I hold the purse strings." That is all set forth in the proceedings of the Commission—the controversy between General Davis and myself—and he, of course, desired me to report to him. I told him that the arrangement was, as he understood, that I was to report to the chairman of the Commission at Washington—that is, to the Commission through its chairman at Washington—and that I could not very well report to him; that I would be serving two masters.

This is a matter I would not have gone into if you had not asked me the question.

Senator DRYDEN. I think it is very pertinent, as that was one of your conditions.

Mr. WALLACE. But he said, "You can very well see, Mr. Wallace, that you have got to come to me under this order, in fixing the wages of workmen or in promotions, or anything of that sort," and he said, "If you report to Admiral Walker and I report to Admiral Walker, and we disagree, it will only be a question of time when one or the other of us will have to leave the Isthmus." I said, "General, I see that situation perfectly clearly, and I recognize that you are an older man than I am and that you do not know how I shall conduct this work; but, of course, you were present at the meeting of the Commission when I was employed, and you naturally feel doubtful about how I am going to handle it." Then he said, "Have you any remedy to suggest?" "Well," I said, "the only thing that occurs to me is this, I would be willing to address my reports to the Commission through Admiral Walker and to send them through you, to give you an opportunity to read them.

"If you found anything in my recommendations that did not line up with what you thought was proper and right, I would expect you to call me in or come into my office; and if you could convince me that my recommendations are not proper, I should want the privilege of withdrawing them and discussing the matter with you and seeing if we could not agree, so as to avoid any controversy." I said, "I came down here to help to construct this canal. I did not come down to raise any question of authority or jurisdiction or to get into any squabble with anyone and if I can conduct the work in the way I think it should be conducted I will put up with almost anything. If I can not, I do not care to remain in connection with it." And we made a sort of a tentative arrangement of that kind, which existed until the Commission came down in August, when we both of us laid the matter

before the Commission; and they decided that the letter on which he based his assumption of authority expired on my arrival, and sustained the position I took; and that closed that incident. But I desire to say that from that time forward there was no Commissioner connected with the work that gave me heartier, warmer support, or with whom I feel that a stronger mutual confidence existed than between General Davis and myself. We were absolutely in harmony.

Senator DRYDEN. That incident, then, had no bearing upon your determination to resign?

Mr. WALLACE. That had no bearing, except this—that that incident and the others that followed of course had that wearing effect, you understand, that any unpleasant incident has in a position of that kind.

Senator MORGAN. What was the decision of the Commission when they arrived and settled up this little misunderstanding between you and General Davis? What position did they take as to your right as chief engineer to act under the orders of the Commission and not under the orders of General Davis?

Mr. WALLACE. I understood that they sustained me in my contention—that is, my understanding. Their record, of course, would speak for itself. It is all embodied in their printed report.

Senator MORGAN. General Davis was then the governor of the Canal Zone?

Mr. WALLACE. He was then the governor of the Canal Zone.

Senator MORGAN. And a Commissioner?

Mr. WALLACE. And a Commissioner; yes, sir.

Senator MORGAN. Anything else?

Mr. WALLACE. No, sir; that was all.

Senator MORGAN. Was he in charge of the engineering work by any resolution of the board?

Mr. WALLACE. Yes, sir; they put him in charge of the engineering work, with this provision, Senator, that he should have charge until the arrival of the chief engineer.

Senator MORGAN. No longer?

Mr. WALLACE. Well, that was my position, you understand; and he did not claim that he was to have charge of that work after my arrival, except this—then the letter went on and defined what his powers were.

Senator MORGAN. Yes.

Mr. WALLACE. He claimed that those powers continued, but those powers practically gave him absolute control over the chief engineer—that is, I mean, the chief engineer and the Commissioner could not both hold those powers, independent of each other.

Senator MORGAN. Until your arrival here he had a chief engineer at work upon the canal?

Mr. WALLACE. He had an acting engineer, Major Black.

Senator MORGAN. Yes; executing his orders?

Mr. WALLACE. Executing his orders; yes, sir.

Senator MORGAN. And who was the chief executive officer of the engineering department?

Mr. WALLACE. I do not know what the arrangement was as to that. But the way the letter to General Davis was written was plainly indicative of the fact that when the chief engineer arrived there he was to have more authority than the engineer that was in charge there under General Davis.

Senator MORGAN. Yes; but General Davis contended and insisted that his powers continued, although you were put in the office of chief engineer?

Mr. WALLACE. Yes.

Senator MORGAN. And that he had the control of your operations as chief engineer?

Mr. WALLACE. Yes, sir; that is the way I understood it.

Senator MORGAN. Then, as I understand, when the Commission met they considered the subject, and they sustained your position?

Mr. WALLACE. I so understood it.

Senator MORGAN. And took away from General Davis his understanding of his authority, whatever it might have been?

Mr. WALLACE. Yes, sir.

Senator MORGAN. To control you as chief engineer?

Mr. WALLACE. Yes, sir.

Senator MORGAN. From that time forward you insisted that you were to receive your directions, not from the governor of the Zone, but from the Commission?

Mr. WALLACE. Yes, sir.

Senator MORGAN. Is that a correct statement of the matter?

Mr. WALLACE. Yes, sir.

The CHAIRMAN. Senator Morgan, I think Mr. Wallace would like to make a further statement. I presume you are not nearly through with your statement, Mr. Wallace, and we would like to have you go on now and finish your statement to the committee. Then we will take up these questions.

Senator. HOPKINS. You were leading up, when you were broken in upon by these questions from the various members, to the subject-matter as to why you left the service?

Mr. WALLACE. Yes; I did not intend—

Senator MORGAN. Let me ask you a question before you go ahead on the same line. What was the date on which you left Panama to come to New York?

Mr. WALLACE. The last time, Senator?

Senator MORGAN. Yes.

Mr. WALLACE. It was on the 16th of June, 1905.

Senator MORGAN. Had you made up your mind before you left the Isthmus to come to New York, that you intended to offer your resignation as chief engineer?

Mr. WALLACE. Yes, sir.

Senator MORGAN. And also as Commissioner?

Mr. WALLACE. Yes, sir; no, not as Commissioner; well, that is, on certain contingencies. You are getting me out of my order, Senator. I was going to lead up to that. But I had made up my mind that under existing conditions the proper course for me to pursue was to offer my resignation, you understand. Whether I would insist upon that or not was dependent entirely upon the result of the prospective interview which I expected to have with the Secretary after my arrival here.

Senator MORGAN. Did that "proper course" relate also to your office as Commissioner?

Mr. WALLACE. Yes, sir; except this—that the way I had figured it out in my own mind, the way that appealed to me, was that under the

circumstances the greatest service I could render to the Government was through being in a position where my counsel and advice would be available as long as there would be any necessity or demand for it. I felt that the position in which I was being placed as chief engineer—that is, having my duties confined to the merely technical work of superintending the work on the Isthmus was of very small moment compared to the value that I might possess to the Government and the Administration in regard to my views and opinions and general advice as Commissioner at that time.

The situation was this: Nothing could be done, except a small amount of work—preparatory work and some experimental work—until the next dry season came on, which was in the coming six months; and general plans could not be made for the conduct of the work until Congress decided on the type of the canal. The man that I had left in charge there, who was my next assistant (Mr. Dauchy), was a man who had been chief engineer of the Chicago, Rock Island and Pacific Railway system, a system fully as large as, if not larger than, the Illinois Central Railroad; a man of almost my own years; a man who was just as well qualified as I was to hold the work in hand and keep the organization going—to train it and drill it—and to continue the preparatory work.

At the same time, the one piece of work which I was very anxious to complete before leaving the work as chief engineer was to formulate the result of my year's investigations; that is, to make an annual report. Then, I was chairman of the engineering committee of the Isthmian Canal Commission, upon whom devolved the duty of preparing the data necessary for submission to the advisory board of engineers, who were to meet on the 1st of September. My own idea was that I could perform the best service by letting Mr. Dauchy follow me on the Isthmus there, and then by preparing this annual report, preparing the data to submit to this advisory board, to assist that advisory board in furnishing it information; and later on, if it was necessary, by appearing before committees in either branch of Congress during this winter, to advise and help them to analyze these reports, and so on. I felt that in doing those things I would be furnishing the best service that I could to the United States Government.

While I am on that particular score, while it has thrown me out of my connection, I presume this may give you the essence of the whole matter:

I made a good many mistakes in my attitude toward that work, mainly for the reason that I was enthusiastic in regard to it. That is, I became so as I studied it, and I felt as if nothing should stand in the way of its success. I felt that the Secretary of War and Mr. Cromwell failed to appreciate the character of work that I was best able to give, and when a new chairman of the Commission was appointed I tried to accept that position; I was very grateful to the Secretary for the change, because I felt that in appointing me on the Commission and on the executive committee he was trying to shape the work up in a proper way. But later on, and particularly after I had sailed for the Isthmus and gone back there, to my mind there appeared an indication upon the part of the chairman to dominate the entire work and to place me in a secondary position.

Senator MORGAN. Who was the chairman?

Mr. WALLACE. Mr. Shonts; and I felt that I could not give the best service to the work in that position.

Senator MORGAN. Let me interrupt you one moment, recurring now to the question I put to you awhile ago: When you left the Isthmus was it your purpose to ask to be relieved of your duties as chief engineer, turning them over to the successor that you had left there in charge of the work, expecting to remain as a Commissioner for the purpose of advising in respect of this choice of routes and such other matters as might be useful to the construction of the canal?

Mr. WALLACE. That is, if the Secretary of War desired me to do so.

Senator MORGAN. Was it your purpose, then, in leaving there, to disconnect yourself at all events and absolutely from all connection with the Panama Canal construction?

Mr. WALLACE. I do not like to say that it was my absolute purpose; but it was what I desired to do, and I desired to discuss it with the Secretary, and I desired to suggest that course to him.

Now, if you will let me explain, Senator, my position was this: After mature thought in going down there the last time I felt that the relations between myself and Mr. Shonts and between myself and Mr. Cromwell would in a short time arrive at a point where I felt that friction would be engendered which would be detrimental to the success of the work, and would be embarrassing to the Administration; and I did not think that it was fair to let that situation mature. I thought it was better for the work for me to come north and have a plain talk with the Secretary, and if he felt the same way that I did for him to relieve me and to put some man in there (of whom there are a great number in this country) that could work in a subordinate position to Mr. Shonts, and who was willing to be in a position where he would be dictated to and under the control of the work, as Mr. Cromwell was——

Senator MORGAN. I can well understand how you would desire to approach the Secretary to reach some understanding in regard to the opinions (which seemed to be conflicting) of yourself and Mr. Shonts concerning the conduct of affairs there, but I do not see why Mr. Cromwell had anything to do with it. Will you please explain that?

Mr. WALLACE. To show you Mr. Cromwell's connection with the work, Senator, I will say that in the statement which the Secretary of War made public after my interview with him, he uses this expression:

"There were present——"

That is, referring to this interview in New York——

"There were present the Secretary of War, Mr. Wallace, and Mr. Cromwell, who for some time had been charged by the President and the Secretary of War with general advisory duties in all Panama Canal affairs."

The CHAIRMAN. Whose statement is that, Mr. Wallace?

Mr. WALLACE. That is the statement of the Secretary of War, which was published in a newspaper article at the time that the public attack was made on me through the columns of the press.

Senator HOPKINS. Mr. Wallace, all you know about that, then, is what the paper published? You did not know that from the Secretary himself, did you?

Mr. WALLACE. All I know of this statement is what I saw; yes.

Senator HOPKINS. So that you have nothing definite to show that the Secretary ever made a statement like that, have you?



Mr. WALLACE. Well, that statement went broadcast all over the land, and was generally understood to be authoritative. If that statement of his is not authoritative, I will take off my hat to him, if he will withdraw it.

Senator SIMMONS. Did that purport to be an interview with the Secretary?

Mr. WALLACE. That has been announced.

Senator SIMMONS. Was it a signed statement?

Mr. WALLACE. It went out to the Associated Press.

Senator DRYDEN. That was his public letter reflecting upon you for resigning your position?

Mr. WALLACE. That was his public letter reflecting upon me for resigning my position.

Senator HOPKINS. Was that language in a letter?

Mr. WALLACE. In this public letter.

Senator MORGAN. Has the Secretary, to your knowledge, ever repudiated that statement?

Mr. WALLACE. No, sir; I never heard of any repudiation of it by him.

Senator MORGAN. Or qualified it?

Mr. WALLACE. I have never heard of any qualification by him of that statement.

Senator HOPKINS. Now, Senator, just a moment; I want to understand Mr. Wallace clearly on that point while we are there. Is that a statement taken from a letter signed by the Secretary of War, or is it what purports to be an interview with the Secretary of War?

Mr. WALLACE. No; as I understood that letter, it was a letter that was authoritatively given out. I did not see his signature to it; but these newspaper men here can tell you how they got the letter. It went out through the agency of the Associated Press. The letter has been referred to by the Secretary in his St. Louis speech, and it has never been denied or modified in any way by him.

The CHAIRMAN. Mr. Wallace, we appear to have sidetracked you a while ago from your regular statement. Can you not get back to it now, and resume your former statement, so as to go along in the order you have selected?

Senator MORGAN. No; I want to find out something more about Mr. Cromwell first.

The CHAIRMAN. We will get back to that later on, Senator Morgan.

Senator MORGAN. No; I want to find out about that now, Mr. Chairman.

The CHAIRMAN. We will get to that later on. Will not that answer?

Senator MORGAN. No; that is the cream of the subject, in my judgment. [Laughter.] [Reading:] "There were present the Secretary of War, Mr. Wallace, and Mr. Cromwell, who for some time had been charged by the President and the Secretary of War with general advisory duties in all Panama Canal affairs." You understand, as I take it, that that was published, either at the instance of the Secretary of War or without objection from him, as containing an expression that he had made to some person who was either interviewing him or receiving information from him?

Mr. WALLACE. I understand that he gave out an authoritative statement to the Associated Press—

Senator MORGAN. That is your understanding?

Mr. WALLACE. (continuing). Yes; and that that was contained in that statement.

Senator MORGAN. Now I want to ask you whether, when you got to the Isthmus first as chief engineer of this work, you met Mr. Cromwell there?

Mr. WALLACE. The first time I met Mr. Cromwell was when I first came to Washington here to confer with the Commission, when he came to present the facts in regard to an extra claim of about two million two or three hundred thousand dollars which he said the New French Company wanted to present against the United States Government, in addition to the forty millions of dollars which the United States Government had paid the New French Canal Company for the Panama Canal property.

Senator MORGAN. On what date was that?

Mr. WALLACE. That is all set forth in the minutes of the Walker Isthmian Canal Commission.

Senator HOPKINS. The first meeting?

Senator KITTREDGE. All that will be found in the reports of the Canal Commission.

Mr. WALLACE. It was on June 7, 1904.

Senator MORGAN. That is the first time you met Mr. Cromwell?

Mr. WALLACE. Yes, sir.

Senator MORGAN. He was then representing the New Panama Canal Company?

Mr. WALLACE. I do not know who he was representing, whether it was himself or that company, but this was an extra claim that was presented.

Senator MORGAN. Was he advocating and pressing the claim, or was he resisting it?

Mr. WALLACE. He was laying before the Commission the facts. He stated to the Commission in my presence that it seemed that this claim had been under consideration for some time; that the President had been requested to act as an arbitrator on this claim; that the matter had been referred to the Isthmian Canal Commission to pass on the facts, and to the Attorney-General to pass on the law; and that, later on, the President was to take up and consider and make a decision as to its equity.

Senator MORGAN. Let me ask you: At what place did you see Cromwell when he was making his statement?

Mr. WALLACE. That was in the office of the Isthmian Canal Commission.

Senator MORGAN. At the Isthmus?

Mr. WALLACE. Here in Washington.

Senator MORGAN. Was the Board then assembled?

Mr. WALLACE. Yes, sir.

Senator MORGAN. And in session?

Mr. WALLACE. In session.

Senator MORGAN. Was he advocating this claim or objecting to it?

Mr. WALLACE. He was advocating it.

Senator MORGAN. That was a claim in favor of the New Panama Canal Company carrying about two million and a half dollars additional charge?

Mr. WALLACE. I do not recollect the exact amount. It was two million two hundred and some odd dollars.

Senator MORGAN. Against the United States for some charge that had not been settled up, as was claimed?

Mr. WALLACE. Yes, sir.

Senator MORGAN. Very good. When did you first see Mr. Cromwell on the Isthmus?

Mr. WALLACE. He came down there with the Secretary of War, I think it was, in December. Let me have my notes and I will tell you. It was in November, 1904, when the Secretary came down to revise the Bunau-Varilla treaty, or to make an arrangement to modify some of its requirements; and Mr. Cromwell was with him and acted as the go-between between the Secretary and the Panamanian authorities, or at least that is the way it seemed to me.

Senator MORGAN. What ship did they arrive on?

Mr. WALLACE. On the *Columbia*.

Senator MORGAN. A war ship?

Mr. WALLACE. Yes, sir.

Senator MORGAN. Who else of an official character was on board?

Mr. WALLACE. There was a party of twenty or twenty-one people altogether; I do not remember who they were. Admiral Walker was one, and there were several officers. Captain Cloman was one of them. I do not recollect their names, Senator.

Senator MORGAN. Mr. Cromwell, you say, acted as a go-between between the Secretary of War and the Government of Panama?

Mr. WALLACE. That is the way it appeared to me.

Senator MORGAN. Who were the negotiators on the part of the Government of Panama?

Mr. WALLACE. I do not know.

Senator MORGAN. They were, then, negotiating an arrangement that afterwards was signed for a *modus vivendi*?

Mr. WALLACE. Yes, sir.

Senator MORGAN. For conducting business with the Government of Panama on points that were disputed between the two?

Mr. WALLACE. Yes, sir.

Senator MORGAN. How long did Mr. Cromwell remain there after that negotiation was closed?

Mr. WALLACE. He returned with the Secretary of War to the United States.

Senator MORGAN. When did he reappear on the Isthmus?

Mr. WALLACE. I never saw him on the Isthmus again.

Senator MORGAN. You never saw him any more?

Mr. WALLACE. No, sir. The next thing that I heard from Mr. Cromwell was in March, when I received a cablegram from him stating that, on his recommendation, the Secretary of War had authorized the directors of the Panama Railroad to elect me general superintendent.

Senator MORGAN. Of the road?

Mr. WALLACE. Of the railroad, yes.

Senator MORGAN. Yes.

Mr. WALLACE. The next day, or the same day, I received a cablegram from Mr. Drake, the vice-president of the Panama Railroad, stating that I had been elected by the board of directors of the Panama Railroad as general superintendent. I immediately wired Admiral Walker, and told him that I did not understand this—that I had no relations whatever with the Panama Railroad, and that I reported to him and should receive any instructions of that kind from him.

Senator MORGAN. You had received a cablegram from Cromwell, informing you that on his recommendation you had been elected general superintendent?

Mr. WALLACE. Yes, sir.

Senator MORGAN. Of the railroad company?

Mr. WALLACE. Yes, sir.

Senator MORGAN. At that time you had held the position of chief engineer of the Isthmian Canal Commission?

Mr. WALLACE. Yes, sir.

Senator MORGAN. And you were a Commissioner?

Mr. WALLACE. No, sir; not at that time.

Senator MORGAN. Had you resigned?

Mr. WALLACE. No, sir; that was before I had been appointed a Commissioner.

Senator MORGAN. That was before you had been appointed?

Mr. WALLACE. Yes, sir.

Senator MORGAN. How long was it after that before you were appointed?

Mr. WALLACE. It was two or three weeks after that. I declined to accept the position as general superintendent of the Panama Railroad, for the reason that I did not care to report to Mr. Drake or Mr. Payne, the general manager of that company in New York, and be reporting consequently, practically, to Mr. Cromwell, who was counsel of that company, and who evidently directed all its movements, because it made a divided responsibility. And again, I did not propose, on account of the positions I had held in the railroad service, to accept a position of that kind, where I would have to get instructions from men that had never visited the Isthmus, and who knew less about it than I did.

Senator MORGAN. You were not a member of the Canal Commission at that time?

Mr. WALLACE. No, sir.

Senator MORGAN. Was Mr. Shonts then placed in the position that you had declined to accept?

Mr. WALLACE. No, sir. I will read a letter from Admiral Walker which will explain the situation, possibly, better than I could state it. This is Admiral Walker's letter to me, dated March 25, 1905:

"MY DEAR MR. WALLACE: Your letter of the 16th, inclosing me a copy of your letter to Mr. Drake with regard to your appointment as general superintendent of the railroad on the Isthmus, was received yesterday.

"It was a matter that was brought about by Cromwell, without the knowledge of the Commission as a body. The whole thing was irregular. The first notice I had of it was your cablegram from the Isthmus, which was mangled in transmission so that I had to send it over to New York to find out what it all meant.

"Of course you will now direct railroad matters on the Isthmus, but the whole question of title, authority, responsibility, etc., will be held in abeyance here until you arrive and the matter can be fully discussed.

"In talking with the Secretary of War on the subject, he seemed not to have fully understood the matter."

Senator MORGAN. Who took office, then, as general superintendent after you declined it?

Mr. WALLACE. Under this letter, which was an instruction from Admiral Walker for me to look after the railroad until this change was made, I looked after the railroad in the interim.

Senator MORGAN. Then who came next, as general superintendent?

Mr. WALLACE. No general superintendent was appointed. After my return to the States, in April, that is, on the order of the Secretary of War, I was elected director of the Panama Railroad and, later, vice-president and general manager of it; and then there was an assistant superintendent on the Isthmus, whom we raised to the rank of superintendent, and he looked after the operations of the railroad on the Isthmus under my general direction.

Senator MORGAN. Who was he?

Mr. WALLACE. A Mr. Prescott. The former general superintendent was a Colonel Shaler, who resigned about the 1st of March and who left the Isthmus then.

Senator MORGAN. Mr. Cromwell was not on the Isthmus when these different transactions took place?

Mr. WALLACE. No, sir; he was here.

Senator MORGAN. When was the time you next met him?

Mr. WALLACE. The next time I met him was when I arrived in New York, the first part of April, when his secretary met me in a carriage at the dock and took me to his office, and Mr. Cromwell said that it was very necessary that I should be sworn in as Commissioner at once. I asked him why it was necessary to do it then; why not wait until I came over to Washington? And he said that I might meet Mr. Shonts there in New York, and we might have business to do, and that he thought it was absolutely necessary that I should be sworn in immediately upon my landing.

Senator MORGAN. How long before that was it that you received your notification of appointment as Commissioner?

Mr. WALLACE. That was the first official notice that I had received, except this, that before I left the Isthmus the Secretary of War cabled down an outline of the reorganization, in which he said that Mr. Shonts was to be appointed chairman and was to have charge of the purchasing at Washington, and that I was to have charge of the work on the Isthmus, including the steamship and railroad lines there, and that Governor Magoon was to be put in as governor, and that we three were to constitute an executive committee; that all the power and authority was to be on the Isthmus, and that that was to be the working headquarters. He wanted to know if I thought the arrangement was all right and if it was satisfactory, and wanted an answer immediately. I cabled back to him that I thought the arrangement was an excellent one, and I was very grateful to him for the way in which the question had been solved.

Senator HOPKINS. Who cabled this to you?

Mr. WALLACE. The Secretary of War.

Senator MORGAN. Have you copies of those telegrams or letters?

Mr. WALLACE. Yes, sir.

Senator MORGAN. Can you furnish them to the committee now?

Mr. WALLACE. Yes, sir.

Senator MORGAN. I want them to go into the record at this point.

Mr. WALLACE. They are among my papers here.

(The cablegrams referred to are as follows:)

"WASHINGTON, *March 24, 1905.*

"WALLACE, *Chief Engineer, Panama:*

"Letter received: Failure of Congress to put full power in the hands of the President requires us to continue organization of Commission, but propose to reorganize board with real powers in executive committee of three. Propose to put Shonts in as the chairman of board and the head of purchasing department; yourself as chief engineer, member of the board and executive committee, and Magoon as governor, member of the board and executive committee. Board to meet on the Isthmus four times a year as headquarters; executive committee to meet constantly on the Isthmus; Shonts to be half time on the Isthmus and one-half here, as circumstances require. Wish power to be on the Isthmus, subject only supervision by the Secretary of War. Do not propose to pay Shonts more than we pay you, or certainly not more than thirty thousand. Magoon will have fifteen thousand and house; other members of the Commission only five thousand a year and \$15 per diem while on the Isthmus.

"This seems to us the most practical method of securing efficient work. Should have an advising board of engineers of highest standing, only to advise plans after all data received:

"Do you not think plan will work? Do not know that Shonts will accept, but assume that he is the one with whom you could work in harmony. Answer quick.

"TAFT."

---

"PANAMA, *March 25, 1905.*

"Secretary War TAFT, *Washington:*

"Plan excellent; satisfactory. Gracias.

"WALLACE."

---

"WASHINGTON, *March 27, 1905.*

"WALLACE, *Chief Engineer, Panama:*

"Come by Wednesday's boat, if possible, to Washington. Answer.

"TAFT."

---

"PANAMA, *March 28, 1905.*

"Secretary War TAFT, *Washington:*

"Under your direction will sail on Wednesday's boat, *Finance.*

"WALLACE."

Senator MORGAN. That was your first visit to the States?

Mr. WALLACE. No, sir; that was my second. My first visit to the States was before, when the Walker Commission instructed me to come up, to be present at the opening of certain bids and the letting of certain contracts for supplies.

Senator MORGAN. Then, this was your second visit?

Mr. WALLACE. Yes, sir.

Senator MORGAN. You made three visits, then?

Mr. WALLACE. I would like to turn that around, and say that I made three visits to the States.

Senator MORGAN. I say three visits to the States?

Mr. WALLACE. Yes, sir.

Senator MORGAN. The third one was when you tendered your resignation?

Mr. WALLACE. Yes, sir.

Senator MORGAN. It was on this second visit that Mr. Cromwell insisted that you should be sworn in at once, because you might meet Mr. Shonts and might have business to do?

Mr. WALLACE. Yes, sir.

Senator MORGAN. That was the time?

Mr. WALLACE. Yes, sir.

Senator MORGAN. Who was it that came to the boat to meet you?

Mr. WALLACE. It was Mr. Cromwell's private secretary. I do not remember his name.

Senator MORGAN. You do not know who he was?

Mr. WALLACE. No, sir.

Senator MORGAN. Why should you have gone to his office before going anywhere else?

Mr. WALLACE. Why, I do not know of any reason, except that he sent for me, and I went.

Senator MORGAN. Were you sworn in then?

Mr. WALLACE. Yes, sir; at his office.

Senator MORGAN. At his office?

Mr. WALLACE. Yes, sir.

Senator MORGAN. Did you meet Mr. Shonts?

Mr. WALLACE. No, sir.

Senator MORGAN. On that visit did you see him?

Mr. WALLACE. I saw him several times, off and on, on that visit. Mr. Shonts, I think, was about leaving for Chicago, and, if I recollect right, I saw him about five minutes before he took his train that night. I next met Mr. Shonts in Washington at one of the regular meetings.

Senator MORGAN. After that meeting with Cromwell in New York did he ever visit the Isthmus?

Mr. WALLACE. Not that I know of.

Senator MORGAN. You never saw him there?

Mr. WALLACE. No, sir.

Senator MORGAN. Up to the time you left?

Mr. WALLACE. No, sir.

Senator MORGAN. Did you receive any instructions or directions or advice from him in regard to the management of business affairs on the Isthmus?

Mr. WALLACE. Except in this way: In our reorganization of the Panama Railroad he wrote out all the resolutions and apparently directed the conduct of the business that was done by the directors of the Panama Railroad and looked after the whole transaction of the reorganization.

Senator MORGAN. Was that done in New York?

Mr. WALLACE. Yes, sir; that was done in New York.

Senator MORGAN. Then he was factotum?

Mr. WALLACE. Yes, sir.

Senator MORGAN. When you came to New York the last time, for the purpose of conferring with the Secretary of War and of tendering

your resignation as chief engineer, and, as I understand, of conferring with him about your resignation as commissioner, did you see Cromwell?

Mr. WALLACE. Yes, sir.

Senator MORGAN. Where did you first see him?

Mr. WALLACE. He came to my hotel, at the Marie Antoinette, in the morning, just as I was first coming down in the morning. I had landed during the night. The boat came in ahead of its schedule, and I went directly to the hotel. My wife was with me. And Mr. Cromwell sent up his card. This is my note on that subject, if I may read, to refresh my memory?

Senator MORGAN. Yes.

Mr. WALLACE (reading). "Mr. Cromwell called to say that he had been instructed by the Secretary of War to ascertain from Mr. Wallace the reasons for his return to the United States and to discuss the situation with him."

Well, I declined to discuss my reasons for coming up. I told him that I thought it was both my privilege and my duty to talk with the Secretary of War, and the Secretary of War alone, first; that he was the officer to whom I reported under the Executive order that outlined the reorganization. Then he said that he was also delegated by the Secretary to arrange for an interview with me. I told him that I would like that interview to be absolutely private and personal. And he said that he had arranged to hold the interview at the Manhattan Hotel, and if I thought that was not private enough he would arrange it at his house. I told him that I did not desire to go to his house; that I wanted to see the Secretary, and I would see him alone; that the hotel or any place was good enough for me as long as that object could be accomplished.

After I left I immediately communicated with the Secretary of War by wire, reported my arrival, and asked him if the arrangement with Mr. Cromwell was satisfactory, or words to that effect; and he replied that it was. I wanted to know whether Mr. Cromwell really was delegated to make arrangements of that kind.

Senator MORGAN. Did you wire the Secretary here at Washington?

Mr. WALLACE. Yes, sir.

Senator MORGAN. When did he arrive in New York?

Mr. WALLACE. I do not know. I met him Sunday morning at the Manhattan.

Senator MORGAN. What day was it, if you remember, when you and Cromwell first met?

Mr. WALLACE. It was Friday morning—the Friday preceding that Sunday.

Senator MORGAN. When the Secretary of War arrived in New York did he inform you of his arrival?

Mr. WALLACE. No, sir; the understanding was that I was to come to the hotel at 10 o'clock Sunday morning. That was the arrangement that Mr. Cromwell made with me, and the Secretary having confirmed that arrangement I had no further communication with him except to be at the hotel at that hour.

Senator MORGAN. And you attended at the Hotel Manhattan?

Mr. WALLACE. Yes, sir.

Senator MORGAN. At 10 o'clock Sunday morning?

Mr. WALLACE. Yes, sir.



Senator MORGAN. Well; was the Secretary alone?

Mr. WALLACE. Mr. Cromwell, when I went into the room, met me at the door. We were in large double parlors, and my son was with me.

Senator MORGAN. What was his age?

Mr. WALLACE. He was 32 years of age.

Senator MORGAN. Yes.

Mr. WALLACE. He is 33 years of age now. He was not quite that old then.

Senator MORGAN. Yes.

Mr. WALLACE. And, knowing that the interview was to be a private one, he withdrew. Mr. Cromwell made a pretense of leaving the room, when the Secretary said: "Cromwell, I want you to stay here. I want you to hear all this." And he was directed to remain.

Senator MORGAN. What was the first remark the Secretary made to you?

Mr. WALLACE. He said: "Now, Wallace, go ahead and tell what you came up here for." I do not remember the exact words, but that is my recollection of it now.

Senator MORGAN. Had you left the Isthmus without permission?

Mr. WALLACE. No, sir; I had cabled him for permission to come.

Senator MORGAN. Yes.

Mr. WALLACE. And in order that it should not attract any public attention until after I had seen him, I sent that cablegram to him in the confidential War Department cipher, that only the Governor had down there. I borrowed his cipher, so that the clerks would not know what was in the cablegram, and Mr. Seager, my private secretary, who is with me now, and myself together prepared the cablegram which I sent to him, asking him for permission to come to the States to have a conference with him.

Senator MORGAN. What was the reply to that?

Mr. WALLACE. The reply to that was that the Secretary of War and Mr. Shonts, not knowing any reason why I should come to the States, nevertheless consented—practically a consent under protest, and it was signed "Edwards;" he was the head of the Insular Bureau. I have here copies of these cablegrams, if you want them.

Senator MORGAN. Then the first request of the Secretary was that you go ahead and tell why you came up?

Mr. WALLACE. Yes, sir.

Senator MORGAN. Did you proceed to tell him?

Mr. WALLACE. I told him that I had two matters to take up with him; one of a personal nature and the other general. The personal matter concerned my connection with the work as chief engineer; and the general matter concerned the general statement that I wanted to make to him in regard to the work.

Senator MORGAN. Did Cromwell stay while you were discussing both these propositions, the personal and the general one also?

Mr. WALLACE. Yes, sir.

Senator MORGAN. Did you invite him to stay?

Mr. WALLACE. No, sir.

Senator MORGAN. Did you protest against his staying?

Mr. WALLACE. I did not protest, because when I told him freely and went to such an extent in my interview with him, telling him that I wanted the interview to be a private and personal one, I thought

that was sufficient. I presume, looking back at it now, that I ought to have remonstrated. But I was impressed with the fact that the Secretary was angry, and that he was suppressing his feelings; and, of course, until my resignation was handed in and accepted, I felt that I was his subordinate, and I did not want to precipitate any unpleasant features in the controversy, which I was impressed was going to be unpleasant anyway, from his attitude. Therefore, I simply let it go along on that basis; but it changed my entire attitude, naturally, from the beginning.

Senator MORGAN. Let me ask you whether you understood from the beginning of the interview of the Secretary with you that he was in an angry mood toward you?

Mr. WALLACE. That impressed itself on me as soon as he spoke and directed Mr. Cromwell to stay in the room.

Senator MORGAN. Yes. He exhibited what you conceived to be anger?

Mr. WALLACE. What I conceived to be suppressed annoyance and impatience.

Senator MORGAN. Had anything occurred between you and him, by way of correspondence or otherwise, to provoke him to anger?

Mr. WALLACE. No, sir; not that I know of. I supposed of all men connected with the work in a higher capacity, that the one man I could talk freely to was the Secretary, although I had never had any private conferences with him either personally or about the work since its inception. There had always been other persons present at our conferences. When he was on the Isthmus in December or November, and was down there about ten days, he lived in the house with me, but his time was all taken up with these conferences and various things, and we hardly got out of bed in the morning before Cromwell was at my front door, and generally he was in close conference with the Secretary when I retired at night.

At one time during that stay I requested an interview with the Secretary, in order to explain the work to him, and he finally set an hour and a day; and when we went into my library to have the discussion, I had my papers laid out on the table there, and was about to commence, when he said: "I have told Mr. Carpenter to send for Mr. Cromwell, as I promised Mr. Cromwell that when I had this conference I would have him present." And Mr. Cromwell came into the room.

Senator MORGAN. In what light did you regard Cromwell there—as an adviser of the Secretary, or as a spy?

Mr. WALLACE. Well, it struck me that he had a great deal of influence over the Secretary, and that the Secretary relied on him for advice and counsel in every step that was taken in connection with the work. I felt that to such a degree that my motives toward him were very mixed. I felt very kindly toward him in one way, because I felt that the Secretary could not have made the change in the executive committee, or would not have made it, except on Mr. Cromwell's advice, or at least his concurrence in the Secretary's policy in regard to the matter.

Senator MORGAN. Now, we will go back to this meeting at the Hotel Manhattan and to the point of time when Mr. Taft addressed to you the question, or the invitation, or the command to proceed to state why you had come. Was that it?

Mr. WALLACE. Yes, sir.

Senator MORGAN. What did you reply?

Mr. WALLACE. I do not recollect my exact words, but I told him that I desired to resign as chief engineer.

Senator MORGAN. As chief engineer?

Mr. WALLACE. Yes, sir.

Senator MORGAN. What did he say to that?

Mr. WALLACE. He did not make any reply. He let me go ahead, and I outlined to him what I desired to do, and the methods that I thought would accomplish it with the least injury to the work and the least embarrassment to the administration.

Senator DRYDEN. Was that the first intimation that Secretary Taft had of your intention to resign?

Mr. WALLACE. In this cable I had sent him I said: "I desire to confer with you and others in regard to matters which may affect my relations to the work as chief engineer." That was about two weeks before I came up here.

Senator MORGAN. That might affect your relations as chief engineer?

Mr. WALLACE. Yes, sir.

Senator MORGAN. Did you proceed to make to Mr. Taft a statement of the causes or reasons why you thought that your resignation as chief engineer might be beneficial to the work?

Mr. WALLACE. No, sir; I did not.

Senator MORGAN. Why?

Mr. WALLACE. I did not give him any reasons whatever.

Senator MORGAN. Why?

Mr. WALLACE. I did not think that his attitude was such that it was wise to take up and discuss those features, and I confined myself simply to telling him what I desired to do; and then when I got through he said, "Now, go ahead and tell us the general matters that you want to talk about." Then I went ahead and discussed the general features of the work there, and Mr. Cromwell commenced to cross-examine me.

Senator MORGAN. Who did?

Mr. WALLACE. Mr. Cromwell.

Senator MORGAN. To cross-examine you?

Mr. WALLACE. Yes; that is, about general conditions.

Senator MORGAN. Yes.

Mr. WALLACE. And concerning several statements I made, one in particular, the Secretary said that he disagreed with me most emphatically; and to my mind it appeared as if there was going to be an attempt made to irritate me into losing my temper, which I tried very hard to control. The examination reminded me a good deal of a cross-examination which a lawyer might make of a witness when he tried to force me to answer yes or no, without proper qualifying explanations. It was like some of the experiences that I have had on the witness stand.

After I made him the general statement, then he cleared his throat and got off that denunciation of me, which was almost word for word what he published through the Associated Press later on.

After the conclusion of that I undertook to argue with him and Mr. Cromwell, and to explain my position and his. I said to them: "You certainly do not take the position that I have not got the right of resignation at all—that I could be in a position where I could be discharged by a cablegram on a moment's notice, and you have the right

to change the conditions, and yet I have not the right to resign at any time or under any conditions?" And they first took the ground that that was my position there. Then I said to the Secretary: "Mr. Secretary, I can not let you nor any other man dictate to me what my rights are or what my duties are. I know what they are." And I said: "You and Mr. Cromwell are supposed to be the two smartest, shrewdest lawyers in the United States; and do you mean to sit there and tell me that there can be an implied contract that would bind me to give my service to the United States Government forever, regardless of changed conditions or anything of that sort?"

And after some argument he finally said, "Well, you at least ought to give us a year's notice." I said, "If it comes down to a question of notice, that is a proper thing to discuss, and I am willing to discuss that with you. I do not mean to say that what I have advanced here as my desire is binding on you. I do claim that I have the right of resignation, and that I want to resign as chief engineer, but I am willing to discuss the matter with you in all its phases." Then he turned around and said, "Well, I will not stoop to dicker with you." He said, "That would be to dicker." Then one thing led to another, until finally the conference was broken up.

Senator MORGAN. At any time during that conference did you tell Secretary Taft that you desired to resign as Commissioner?

Mr. WALLACE. No, sir; except this: I told him that I was willing to continue to hold the office of chief engineer and perform the duties as long as he desired it. I told him that by preference, of course, I would like to be relieved of all my responsibilities, but that I felt that it was my duty to place myself at the service of the Government in the way that my service could be of the most benefit as long as it was necessary.

Senator MORGAN. What cross-questions did Mr. Cromwell put to you while you were under this examination?

Mr. WALLACE. I do not remember them now. That conference was a very long one and a very unsatisfactory one. One thing that I do remember absolutely that he wanted me to answer yes or no about was this: Whether or not the work could be continued at the Isthmus regardless of the type of canal which might afterwards be adopted. I told him that was a question I could not answer yes or no; that certain forms of work could go forward regardless of the type for a certain period of time, but that it would be a great deal better, and a great deal more economical in the conduct of the work, to have the earliest possible decision reached as to the type of the canal that would be adopted.

Senator MORGAN. What conclusion was reached before Secretary Taft closed his interview with you?

Mr. WALLACE. I finally got up out of my chair and said that the interview seemed to be an unprofitable one, and that I was very sorry to have it terminate in that way. In the meantime, during one of our talks backward and forward, he had said, "If you are going to resign at all you might as well resign now." And I said to him, "Whom do you think I should address my resignation to?" He said, "Address it to me." I said to him, "Do you not think it would be more proper for me to address it to the President, who has made the appointments that I hold, and send it to him through you, which is the regular course of procedure in matters of that kind?" He thought for a

minute, and then said he did not know but what that would be the better way.

When I got up to withdraw from the room I told him that I would, as soon as possible after I had composed myself, send my resignation to the President through him, as Secretary of War, subject to the President's acceptance at his own pleasure and convenience.

Senator MORGAN. Did you send in your resignation?

Mr. WALLACE. I sent it in in that way.

Senator MORGAN. What offices did you include in that resignation?

Mr. WALLACE. I included the office of Isthmian Canal Commissioner and chief engineer, and made their acceptance subject to the acceptance of the President, at his pleasure and at his convenience.

When I left after that interview I never dreamed for a moment but that I would be called to another one before the matter was finally terminated or that the Secretary would say, "Well, Wallace, you and I seem to have misunderstood each other. Let us take this matter up to the President and discuss it with him." But my resignation was accepted, and that incident was closed, except that the next morning after the interview occurred all sorts of articles came out in the newspapers criticising me, and on the following Friday morning what I understood was the authorized statement of the Secretary was given to the Associated Press. Then I made a reply to that which was published the next morning and which is one of the papers which I handed in to the reporter here in connection with my first statement.

Senator MORGAN. During that interview between you and Mr. Cromwell and Secretary Taft was it intimated to you, or did you intimate, that you were to receive a greater compensation in some arrangement that you had either completed or expected to complete with another business or another line of business?

Mr. WALLACE. Yes; I did. I had not accepted it, and I did not state the amount of the compensation.

Senator MORGAN. Yes.

Mr. WALLACE. The Secretary evidently misunderstood me.

Senator MORGAN. What did you say to him?

Mr. WALLACE. I do not recollect the statement that I made. I think I said to him that I had an offer that I would like to accept that would give me a compensation of practically double what I was receiving, and that when I first received it I had hesitated, and in the correspondence that went backward and forward afterwards the intimation was given to me that it would be increased, if necessary. One of my motives in telling him that was to give him an apparent reason for my leaving, and the other one was that I did not want him to think that I was after any pecuniary consideration. In other words, I wanted to disabuse his mind of any idea that I had come up here to try to get him to increase my salary, because I have never asked any employer in the last thirty years to advance my salary in any position that I have ever held.

I may have been wrong in it, but I supposed an intimation of the offer I had received would be more acceptable to him than any other reason that I could give him, on account of Mr. Morton's having laid down his duties as Secretary of the Navy and accepted a more lucrative position, and Mr. Day's having laid down his duties in the prosecution of the trusts, and things of that sort, and that seemed to "go"

satisfactorily. I may have been wrong in intimating anything like that.

I want to say right here, however, that I had not accepted that position then and that I have not accepted it since; and that before I had the interview with the Secretary, I told the parties that had made the proposition to me that, while their proposition was satisfactory in a way, I did not propose to go any further with them until I could find out whether or not I could make a satisfactory arrangement with the Secretary of War to accept my resignation and to make some arrangement by which my leaving would not endanger the work or embarrass the Administration.

Senator MORGAN. Were you willing at that time to retain your office as Commissioner, giving up your office as chief engineer?

Mr. WALLACE. Yes, sir.

Senator MORGAN. Did you so signify to Mr. Taft?

Mr. WALLACE. Yes, sir. I did not expect my resignation as chief engineer, even, to take effect for several months; but that is what I wanted to discuss.

Senator MORGAN. Yes.

Mr. WALLACE. I did tell the Secretary that I did not want to go back to the Isthmus, you understand. I did not mean that I did not want to go back there at all, but what I meant was that I did not want to go back there as chief engineer.

Senator MORGAN. Yes.

Mr. WALLACE. Or to continue to hold that office.

Senator MORGAN. Now, Mr. Wallace, why did you not want to go back as chief engineer?

Mr. WALLACE. Well, under the Executive order 'I was equally responsible as a member of the executive committee on the Isthmus with Mr. Shonts and Mr. Magoon, and under the interpretation that Mr. Shonts put on his arrangement with the President—that was a verbal arrangement which I understand he had with the President—he was to absolutely dominate that work.

Senator MORGAN. To have a "free hand," as the expression is?

Mr. WALLACE. Yes, sir; to have a free hand. And I was placed in the secondary position of being subordinate to him. I felt that, without any egotism at all, I was much better qualified to conduct that work than he was. I felt that he had not had the experience either in a business way or a professional way, and that he was not as well qualified as myself, either in a business way or as an administrator or as an executor of that work.

Senator MORGAN. He is not an engineer?

Mr. WALLACE. He is not an engineer at all, you understand. I felt this: That with the outline that I had made of my ideas of that work to the original Walker Commission I was to be practically what you might call director-general of that work; that while my headquarters were to be on the Isthmus, still it was thoroughly understood that I was not to be dominated by any single individual that would come between the Administration and myself. I felt that I could not give loyal service in that position, and I felt that it would be much better for me to sacrifice my ambitions, which were practically boundless, as far as the engineering work was concerned, which would have been the crowning effort of my professional career, if I could have remained

in the work. I felt that it was better for that work for me to go even to the extent of sacrificing those ambitions rather than to stay there in a position in which I had been humiliated and in which I would have felt that it was my duty to disobey orders that I might receive, or create friction which would cause lack of harmony and disturbance. I felt that it was my duty to get out, particularly when there were so many men that could be employed that were just as competent as I was to occupy a position of subordination.

Senator MORGAN. At the time Mr. Shonts was put in there you actually held the position of chief engineer?

Mr. WALLACE. Yes, sir.

Senator MORGAN. And also of Commissioner?

Mr. WALLACE. No, sir.

Senator MORGAN. That was later?

Mr. WALLACE. I was made Commissioner at the same time.

Senator MORGAN. And you were the chairman of the committee?

Mr. WALLACE. Of the engineering committee.

Senator MORGAN. Was that called an executive committee?

Mr. WALLACE. No, sir; that was not an executive committee. That was simply an advisory committee.

Senator MORGAN. Three of you were on that committee?

Mr. WALLACE. I was on the executive committee, which was made up of Mr. Shonts and Mr. Magoon and myself.

Senator MORGAN. That was the general executive committee?

Mr. WALLACE. Yes, sir.

Senator MORGAN. I am speaking now of the engineering committee.

Mr. WALLACE. Then the engineering member of the Commission, General Hains, and Colonel Ernst and Major Harrod and Admiral Endicott and myself were constituted an engineering committee.

Senator MORGAN. And you were made chairman of that committee?

Mr. WALLACE. I was made chairman of that committee; yes sir.

Senator MORGAN. Then, holding the position of an engineer in fact, and of engineer in chief under the Commission, and also of chairman of the committee of engineers, you were not disposed to take orders from Mr. Shonts as to your conduct in conducting the engineering of that enterprise, unless those orders came from the Commission?

Mr. WALLACE. No, sir.

Senator MORGAN. That was your attitude?

Mr. WALLACE. Yes, sir; in other words, I considered, and I think the wording of the executive order that outlined that organization will bear me out, that there was not anything in that to give Mr. Shonts any more domination over myself or Mr. Magoon than his vote would entitle him to—either his vote as a member of the executive committee, having the casting vote, or his vote as a member of the Isthmian Canal Commission, he being chairman and having the casting vote, in case of disagreement.

Senator MORGAN. Was it any part of your purpose in coming up to New York to see the Secretary of War, to ascertain whether the free hand that had been given to Mr. Shonts meant all that he claimed that it did?

Mr. WALLACE. That was something that I wanted to discuss with him.

Senator MORGAN. That was one of the points you wanted to discuss with him?

Mr. WALLACE. Yes, sir.

Senator MORGAN. You wanted to object to it?

Mr. WALLACE. Yes, sir.

Senator MORGAN. You did not want anybody put over you except the Commission?

Mr. WALLACE. No, sir.

Senator MORGAN. Or the President?

Mr. WALLACE. No, sir. Then there is another thing that I had in my mind, and that was this: I wanted to discuss with him Mr. Cromwell's relation to the work. Mr. Cromwell was an officer of the Panama Railroad and Steamship Line, and Mr. Cromwell, to my mind, seemed to be the controlling force that dominated the policy of that railroad, and he had already performed several acts in that connection that did not strike me as acts that lined up with what I thought was the proper way to handle that property.

Senator MORGAN. He had no connection with the railroad except as one of the directors?

Mr. WALLACE. He was counsel of the railroad.

Senator MORGAN. And as counsel?

Mr. WALLACE. Yes, sir.

Senator MORGAN. And he had no official connection with the Canal Commission?

Mr. WALLACE. None with the Canal Commission.

Senator MORGAN. But it was the affairs of the Canal Commission and the railroad that he was attempting to control and dominate?

Mr. WALLACE. Yes, sir.

Senator MORGAN. Both?

Mr. WALLACE. Yes, sir; in an advisory capacity.

Senator MORGAN. Yes.

Mr. WALLACE. I had one interview with him in which he undertook to practically tell me the character of men I ought to hire, and matters connected with some of my appointments; and that I resented quite strongly at the time. But it was not until after I had gone back and I commenced to think over that and think what it meant, that I realized that he meant to impress upon me the fact—that is, by implication—that it was something more than a suggestion, and that on account of his influence with the Secretary I ought to be guided by his suggestions, and that they should be authoritative, that the full effect of it struck me; but the substance of it all was simply this; I felt that my position was rapidly becoming untenable, and I felt that in my expression of gratification at the change in organization I had made a mistake, and that I ought to have raised the question then, and I feel now that it would have been much better if I had remonstrated at the very start.

Senator HOPKINS. You mean at the time of the reorganization of the Commission?

Mr. WALLACE. At the time when Chairman Shonts was appointed.

Senator HOPKINS. That was the time of the reorganization of the Commission; was it not?

Mr. WALLACE. Yes, sir. But at the time I was in the States I wanted to try it. The situation was so much better than it had been before, the organization was on better lines, and I made up my mind then that I would cheerfully try to get along with Mr. Shonts and that I would wait until he committed some overt act in directing me,



and then let him raise the issue; and the same way with Mr. Cromwell. I did everything I could to keep on good terms with him. It was impressed on my mind that he was a dangerous man, and that it might be that his motives were of the utmost purity; that it might be, on account of his great personal wealth, that what he was trying to do was to perform a patriotic duty gratuitously, and that I might misjudge him.

Senator MORGAN. Who are you speaking of now?

Mr. WALLACE. Of Mr. Cromwell.

Senator MORGAN. Oh!

Mr. WALLACE. But toward the wind up I made up my mind that it was a great deal better for the interests of the work if I would eliminate myself, and let them select some one that would subordinate their ideas to the—

Senator MORGAN. If I catch your meaning, and I think I do, part of your office up here was to shake Mr. Cromwell off your shoulders?

Mr. WALLACE. Yes, sir; you have caught the meaning.

Senator MORGAN. Did you feel that that was necessary to the proper and successful prosecution of the work there?

Mr. WALLACE. I did not want to do him any injustice.

Senator MORGAN. No.

Mr. WALLACE. But it did not strike me that his relations with the work were such as were most desirable.

Senator MORGAN. Why not?

Mr. WALLACE. Well, as far as my own relations were concerned, I realized this: I was 2,000 miles away from headquarters, and here was a man who occupied no official position, but who had the ear of the Administration, and a word from him could upset my plans or my policy or cause instructions to be given me that I might not be willing to carry out.

Senator MORGAN. Awhile ago I believe you referred to him as a dangerous man?

Mr. WALLACE. That was the way he appeared to me.

Senator MORGAN. Dangerous how?

Mr. WALLACE. He may be perfectly harmless.

Senator MORGAN. How do you mean—that he is a belligerent man?

Mr. WALLACE. No, sir.

Senator MORGAN. Not a warrior?

Mr. WALLACE. No, sir.

Senator MORGAN. In what direction is he dangerous?

Mr. WALLACE. I suggested that he may be perfectly harmless, but it struck me that from his relation to the work, as being the man that brought about the sale of the Panama Canal, that assisted in the Panama revolution, that acted as fiscal agent of the Panama Government in making its investments, that is carried on the Panama diplomatic list as one of its members, is a director in the Panama Railroad, an advisor to the Secretary, a stockholder in a public utility company that was on the Isthmus—

Senator MORGAN. I wanted to ask you about that: Was he that?

Mr. WALLACE. I heard repeatedly that he was that when I was on the Isthmus.

Senator MORGAN. He has that reputation down there?

Mr. WALLACE. Yes, sir. I felt that a man that was mixed in so many things was liable to have his ideas perverted, and might some

time or other advise the wrong thing, or do the wrong thing, which, if the executive committee that controlled the Isthmian Canal should follow his advice and follow his instructions, might possibly lead to scandal.

Senator MORGAN. Do you know anything at all about his connection with financial affairs or banks down there?

Mr. WALLACE. I do not know anything about his connection with banks there, except that all the interests on the Isthmus seemed to look upon him as their protector.

Senator MORGAN. You mean the interests that would derive their profit out of the canal and the railroad?

Mr. WALLACE. Well, the various interests there; they looked on him as their "friend at court."

Senator MORGAN. There was another company there, I believe, that had ice—on one side?

Mr. WALLACE. The Panama American Company.

Senator MORGAN. They had ice on one side and electricity on the other—two functions?

Mr. WALLACE. Yes, sir.

Senator MORGAN. That was the Panama American Company?

Mr. WALLACE. Yes, sir.

Senator MORGAN. Had he any connection with that?

Mr. WALLACE. I was told on the Isthmus that he was one of the principal stockholders in that.

Senator MORGAN. Yes.

Mr. WALLACE. That is confirmed by a letter that was written by a Doctor Lundie to the President that was transmitted to the Senate some time ago, in which he was given as holding 22½ per cent of the stock of that corporation.

Senator MORGAN. We have that letter here.

Mr. WALLACE. The stockholders were named in that letter.

Senator MORGAN. I take it from what you say that your apprehension of his capacity for doing dangerous things consisted mostly in the fact that he was on the make and had good opportunities on the Isthmus to make money out of the Government?

Mr. WALLACE. One of the things that struck me most peculiarly about it was that when I got into the Panama Railroad office I was looking over their reports and I found that the last year that the Panama Railroad was owned by the French company, which owned 99 per cent of its stock, they declared a dividend of over \$100,000 more than they had earned; and that after the declaration of that dividend they sold bonds in their treasury to make ordinary repairs or rebuild their steamships, which should have been rebuilt out of the earnings of the company; and it looked to me as if for counsel to advise that proceeding (which to my mind was practically taking that much money that belonged to the United States Government and putting it into the pockets of the holders—I mean, of the owners of the New Panama Canal Company) bordered on the line of "high finance."

Senator MORGAN. Of high finance?

Mr. WALLACE. Yes.

Senator MORGAN. Otherwise translated "graft?"

Mr. WALLACE. Yes, sir.

Senator MORGAN. I think I have nothing further to ask at this moment.

Senator ANKENY. Mr. Wallace, you dropped the matter of your first meeting with Mr. Cromwell. Your conversation was about a claim for two million and some four hundred thousand dollars?

Mr. WALLACE. Two million two hundred and some thousand.

Senator ANKENY. You spoke of that. What did you do about that?

Mr. WALLACE. Well, I did not hold a position where I was called upon to do anything.

Senator ANKENY. Well, what was done? Was it paid?

Mr. WALLACE. No; the Commission had no power to pay that.

Senator ANKENY. Were the claims audited?

Mr. WALLACE. The Commission was simply to say what the facts were—that is, they were simply to look into the matter and verify the amount and see whether the money was expended, and what was done with it.

Senator ANKENY. What was this claim?

Mr. WALLACE. If I may explain a little bit to you: When Admiral Walker conducted the bargaining for the purchase of the Panama Canal property by the United States Government, if you will look all through his correspondence with the New French Canal Company, you see that he was particular to state that the forty millions of dollars which the United States Government was to pay the New Panama Canal Company for that property—

Senator ANKENY. We are familiar with that.

Senator HOPKINS. Let him finish, please. I should like to hear all of that.

Mr. WALLACE. That that was for the whole business, "lock, stock, and barrel." I do not know but what the Admiral used that expression. That money was to be paid, when? It was to be paid when the French Government were able to make a good title, including the ratification of a proper treaty covering the franchise between the United States Government and the Republic of Colombia.

Senator ANKENY. A total settlement?

Mr. WALLACE. A total settlement. After that total settlement was made and the \$40,000,000 paid, then Mr. Cromwell bobs up with a claim of extras which he says is the amount of money which the French company paid out to continue that work between the time when the \$40,000,000 was agreed upon and the time when it was actually paid and the Americans assumed control of the Panama Canal.

Senator ANKENY. If it is not impertinent, did he furnish a bill of particulars of his two million and odd dollar claim?

Mr. WALLACE. Yes, sir; that is set forth in the proceedings of the—

Senator KITTREDGE. Of the Commission, a year ago last December?

Senator MORGAN. That came up in the proceedings that are on the table here now, of this same committee. We had that claim fully explored and presented to Congress before the Government of Panama was in existence. The question arose in this way: The contract between Monsieur Bo and Admiral Walker was made by cablegram. It was never reduced to writing, so far as I know or could ascertain, never formulated.

Senator KITTREDGE. Did you ever examine the testimony that was taken before the Walker Commission a year ago last summer or fall and found in their report to Congress of a year ago last December?

Senator MORGAN. I do not recall it just now. Was that contract formulated then?

Senator KITTREDGE. No, there was no contract; but the old Walker Commission took testimony upon the subject of the claim to which Mr. Wallace is now making reference.

Senator MORGAN. That is what I am talking about. The question arose, then, whether or not the canal would pass to the United States in the condition in which it was when Monsieur Bo accepted Walker's proposition, or Walker accepted Monsieur Bo's proposition, or whether it would pass in the condition in which it would be found at the time of the consummation. In the meantime the Panama Canal Company, in order to prevent the forfeiture of its franchise by the Colombian Government, went on and scratched over the Culebra head. The ground was taken in the committee that while the Panama Canal Company was exercising its functions in that way for the purpose of protecting its franchise against forfeiture, it was not doing any work that the Government of the United States should pay extra for.

The sum agreed upon was forty millions of dollars, the Panama Canal Company having dropped in an hour from one hundred and nine million to forty million dollars, Admiral Walker having "ordered that up," you might say, when he put that amount of money on the table. Then the question was presented and considered and argued and discussed among lawyers as to whether or not that was the sum finally to be paid by the United States, or whether we were to pay in addition to that for what work the Panama Canal Company might do or would do at Culebra or anywhere there for the purpose of protecting its charter against forfeiture by Colombia or by any other government that had the right to forfeiture.

Now, Colombia dropped a stitch and lost a State, and the Panama Government came into existence through our recognition. Then it became, to the minds of some, still more evident that the payment of forty millions of dollars by the United States to the Canal Company and ten millions to Panama would either extinguish this—I will call it furtive claim—or else it would make Panama liable for it. Now, I understand that that is the claim that Mr. Cromwell is prosecuting against the Government of the United States in favor of the New Panama Canal Company. I simply wanted to describe it, so as to get in the minds of the committee a clear idea of what the claim was. It is for work done between the time of Mr. Bo's acceptance of Admiral Walker's proposition and the time of the interchange of drafts and conveyances to close the transaction.

Senator ANKENY. Really, to sustain their franchise?

Senator MORGAN. Yes; that is the proposition; and the claim may be a good one; I would not say that it was not a good one—yes, I would, too. But Mr. Cromwell can not honorably and with safety occupy the position of counsel to the railroad and general counsel and intermeddler, as indicated by the testimony that the witness has given this evening, and at the same time be prosecuting claims for \$2,200,000 against the Government of the United States in favor of the New Panama Canal Company. He has got too much to do to make it all work.

Senator HOPKINS. Shall we adjourn, Mr. Chairman?

The CHAIRMAN. If you can resume your main statement, Mr. Wallace, we would like to hear you for a few minutes, and then adjourn until 10.30 o'clock to-morrow morning.

Mr. WALLACE. I do not know that it would be profitable for either the committee or myself to discuss my personal connection with the work any further than that I would like just simply to close it with the emphatic statement that I would not have left that work if I had felt that in justice to myself and in justice to the work I could have remained with it, regardless of financial or any other considerations. That is all.

The CHAIRMAN. Mr. Wallace, I think we shall have to ask you to give us, to-morrow, a general statement of the conditions of the work there when you went down and at the time that you left the canal.

Mr. WALLACE. I should be delighted to do that, but this personal matter is such a painful one for me—

The CHAIRMAN. You do not wish to carry that any further?

Mr. WALLACE. I would rather not carry that any further. I am perfectly willing to place my knowledge indefinitely at the service of this committee in any way that I can help you, in describing conditions there or in giving you any information that I may possess.

The CHAIRMAN. Then we will ask you to be here at 10.30 o'clock in the morning.

Senator HOPKINS. I want to hear Mr. Wallace, but I can not be here at 10.30 to-morrow morning, Mr. Chairman.

(After an informal discussion concerning the time when the committee should resume its sessions.)

Mr. WALLACE. Will you allow a suggestion, Mr. Chairman? I understand that you want to hear me after you are in possession of the reports of the minority and majority of the advisory board, and of the regular Isthmian Canal Commission in connection with the plans, etc.?

The CHAIRMAN. Yes; that is right.

Mr. WALLACE. How would this do: If you should release me now, and let this matter stand closed as far as we have gotten, and then, when you get these reports, and can let me have them to look over and examine, call me at some future day, say two or three weeks ahead, and then release me and let me in the meantime attend to my business?

Senator KITTREDGE. Can you not go on and give us facts within your knowledge regarding the administration and so on?

Mr. WALLACE. Yes; certainly I can.

Senator KITTREDGE. And the management and operation of the railway and steamship company?

Senator HOPKINS. I think that is quite as important as the other branch of it.

Senator KITTREDGE. I think we should go on with that now, and then excuse Mr. Wallace and give him an opportunity to examine the reports when they are made public.

Mr. WALLACE. The one thing that I want to avoid is being tied up here for two or three weeks continuously.

The CHAIRMAN. I think we can finish with you to-morrow, without doubt.

Mr. WALLACE. If you can finish with me to-morrow or Wednesday, that will be perfectly satisfactory to me.

Senator HOPKINS. Suppose I am unable to get a continuance to Wednesday of the meeting of the Committee on Privileges and Elections, in which event I could not be here to-morrow, Mr. Chairman?

The CHAIRMAN. Would you be willing to read over this testimony that Mr. Wallace will give to-morrow, after it is given?

Senator HOPKINS. I may want to examine Mr. Wallace. I have made some memoranda here concerning points that I want to develop a little, and I will say to Mr. Wallace now that it is entirely in a friendly spirit, too. It is not for the purpose of a court cross-examination such as was referred to by him.

The CHAIRMAN. To-morrow is our regular day to meet, Senator. This matter is going to be so protracted that I think we should get along as fast as we can.

Senator MORGAN. Why not meet to-morrow afternoon at 2.30 o'clock?

The CHAIRMAN. Our regular meeting hour is 10.30 in the morning; but we can meet in the afternoon at 2.30 if that will meet the views of the Senators.

Senator MORGAN. We can meet at 10.30 o'clock and not call Mr. Wallace until 2.30.

Senator HOPKINS. I will make an effort to have the meeting of the Committee on Privileges and Elections continued, so that I can be here at 10.30.

Senator KITTREDGE. I move we adjourn, Mr. Chairman, until 10.30 o'clock to-morrow.

(The motion was carried.)

The CHAIRMAN. If we do not have a meeting then, we will have it in the afternoon. Mr. Wallace, we will ask you to come down here at 10.30 o'clock in the morning.

(Thereupon, at 4.45 o'clock p. m., the committee adjourned until to-morrow Tuesday, February 6, 1906, at 10.30 o'clock a. m.)



## ISTHMIAN CANAL.

---

COMMITTEE ON INTEROCEANIC CANALS,  
UNITED STATES SENATE,  
*Washington, D. C., Tuesday, February 6, 1906.*

The committee met at 10.30 o'clock a. m.

Present: Senators Millard (chairman), Kittredge, Dryden, Hopkins, Knox, Ankeny, Morgan, Taliaferro, and Simmons. Present, also: John F. Wallace, esq.

### TESTIMONY OF JOHN F. WALLACE, Esq.—Continued.

The CHAIRMAN. I think, Mr. Wallace, yesterday at the time that Mr. Morgan began asking questions you were proceeding with the history of the conditions at Panama, in a general way, were you not?

Mr. WALLACE. I was about to enter on that. I do not know exactly how far I had gotten.

The CHAIRMAN. If you can continue with that now I think it would be a proper time, if you are prepared to do so.

Mr. WALLACE. Perhaps I had better start in and describe the conditions down there and the situation about the work. Is that what you would like to have me do?

The CHAIRMAN. Yes; we would like to have you do that right now, stating what the situation was from the time that you arrived there.

Senator KITTREDGE. When did you first arrive?

Mr. WALLACE. It was in the latter part of June, 1904. I have the exact date here among my memoranda. I left New York on the 21st of June, 1904, and arrived at Panama on the 28th of June. I found Major Black in charge of the work, as acting chief engineer.

The CHAIRMAN. Mr. Wallace, what day did you say you left New York?

Mr. WALLACE. On the 21st of June.

The CHAIRMAN. I thought you said the 24th?

Mr. WALLACE. No, sir, the 21st; and I arrived there on the 28th, the trip requiring seven days.

As I stated yesterday, I had instructions from Admiral Walker to report my arrival to General Davis, which I did; and I was introduced to Major Black, who had been acting as chief engineer, but who had been reporting to and receiving his instructions from General Davis under this order that General Davis had received from the Commission. And after the discussion which I had with General Davis, which I spoke to you about yesterday, we made a temporary arrangement in which I reported to the Commission as per my former



arrangement, and transmitted my letters through General Davis, so that he could see everything that I wrote, with the understanding that if he found anything objectionable in those letters or anything that did not conform to his ideas, we would discuss them and arrive at an understanding; and that if I could not bring my ideas to agree with his, or make recommendations that would meet with his approval, that then I should reserve the privilege of insisting that the communication go forward in any case, and he could write his own opinion on the subject and the matter would be referred to the Commission.

That arrangement was perfectly satisfactory to him, as a sort of a temporary arrangement, until the Commission could pass on the matter. After I became better acquainted with him, and he became familiar with my ways and methods, he commenced to voluntarily relax some of this authority which he arrogated to himself; our relations were very friendly, and we had no disagreement whatever. His ideas and mine seemed in some way or other to coincide.

I found about 500 men at work at Culebra cut—the work, however, all being performed by hand, no machinery being used except the locomotives and the cars, the drilling being done by hand, and the loading being done by hand.

Senator ANKENY. There were no shovels at work?

Mr. WALLACE. No, sir. There were French excavators in the cut, but my recollection is that none of them were at work, although I believe they did have one that they had been experimenting with.

I found four different assistant engineers at work on technical investigations: One party under Mr. List, at Colon, who was charged with the investigations necessary to secure the requisite data to plan the harbor entrances and the canal reach up to Gatun. I found Mr. Nichols with a party at Gatun. That is about 7 miles up the Chagres River from Colon. He was engaged in making cross sections of the borings to determine the possibility of dam foundations at Gatun. He was also charged with the investigations of a cut-off line called the Tiger Hill cut-off, which had been suggested by Mr. George S. Morrison, one of the original Canal Commissioners on the first Walker Commission. The next party was under Mr. Dauchy, at Bohio, who was charged with the borings and the various surveys to determine the subgeological formation in the vicinity of Bohio. The fourth was under the charge of Mr. Boyd Ehle, who was charged with the technical studies in regard to the Gamboa dam site, the Alhajuela dam site, and the general characteristics of what we call the Upper Chagres Valley, above Gamboa.

Those parties, however, had performed practically no work prior to my arrival there, on account of the fact that they had not been provided with proper tools and appliances. They had some of their engineering instruments that they had taken down, but drilling machinery and other supplies were lacking, and had retarded their doing any actual work before I arrived there.

There was a fifth engineer, who had been working under Major Black at Culebra and who had made a few surveys, a Mr. Harper. The excavating work at Culebra was going on at about an average rate of 25,000 cubic yards per month.

That was the situation when I took charge.

Colonel Gorgas went down with me, with his staff, on the same boat, although he had made a preliminary trip there earlier in the season. The only men that I took down with me, I think, were four men on my personal staff. The object of my going down so light-handed was that the Commission desired that I should get on the ground at the earliest possible moment, so that I might study the conditions, and I did not think it advisable to start in with a large organization. I wanted to feel my way, and I wanted to make personal study of the conditions there, and it was necessary to get these technical studies started, as they were the foundation of anything we might afterwards do.

I devoted my first attention to the repair of the hospital buildings. Senator HOPKINS. At Colon?

Mr. WALLACE. At Ancon and Colon both. One of the first things I did was to employ what we call a supervising architect; that is, an architect that could plan new buildings and take charge of the repairs to the old buildings and supervise the carpenters and the workmen and the plumbers, and all that sort of thing. That was in July of 1904.

That department was practically given preference over the other work. We first started in with all the native mechanics that we could secure; and then we brought them from the States. At the time that I left there the personnel of the force in that department was always ahead of the material that we had on hand to work with—always.

At the time I left the Isthmus and at the end of the year my recollection is that there were from 1,500 to 1,600 employees engaged exclusively in the work of constructing buildings and repairing buildings; and during that time the two large hotels that are now occupied—I do not think there have been any constructed since of that size—were constructed and put in actual operation; and hundreds of buildings were repaired and made habitable.

Senator HOPKINS. Whereabouts are those hotels located that you spoke of?

Mr. WALLACE. One of them we erected at Corozal, about 5 or 6 or 7 miles out of Panama, and the other was constructed at Culebra.

The CHAIRMAN. Were these buildings constructed while you were there?

Mr. WALLACE. Yes, sir; those were constructed and put in use before I left the Isthmus. I had plans on our drawing boards for six more structures of the same kind, that were not constructed before I left the Isthmus. I do not know whether they have been constructed since or not. But the reason that only two were completed at the time I left there was on account of our exhausting all the material that we had for that purpose.

The work of preparing for the men, however, was always behind. We were pushed for lumber and material to such an extent that frequently we bought mixed cargoes of lumber that came to the Isthmus by schooner—just bought it in the open market, in order to keep our carpenters busy; and at no time during the entire time that I was on the Isthmus was there a full amount of material that permitted our forces to be kept constantly busy, either in that or in any other department. I desire to call attention to this because I have been pub-

likely criticised for not taking proper care to provide for my men there, and I wanted to emphasize the facts that I have stated.

The next step in the way of actual work that I undertook was that about the time I went down I employed a sanitary engineer, or an engineer in charge of waterworks and sewerage, with his complete staff. That was the most complete suborganization we had on the Isthmus, and we took up the question of sewerage and water supply at the very start. By about the middle of August, by the time the Isthmian Canal Commission came to the Isthmus, we had a water supply designed for the city of Panama; we had the rough plans made for it, and we had practically the bills of the material made out for the pipe.

Senator HOPKINS. That was in August, 1904?

Mr. WALLACE. That was in August, 1904, yes, sir; and if that material could have been purchased in the same businesslike way that material could be purchased by any railroad company or any manufacturing establishment, we could have had that water supply practically completed, as far as the furnishing of water was concerned, in the city of Panama by the 1st of January, 1905. When I left there in the latter part of June, 1905, we had it about connected up, although we did not get the last of the 16-inch water-main pipe until in May, 1905.

The CHAIRMAN. Up to the time that you went there I suppose there had never been anything done, either to put sewers in or to install a water supply in the city of Panama?

Mr. WALLACE. Nothing whatever.

The CHAIRMAN. Nothing of that kind?

Mr. WALLACE. No, sir. We also, simultaneously with the steps we took to provide a water supply, designed and commenced the construction of a sewerage system.

Senator HOPKINS. You are now speaking of Panama?

Mr. WALLACE. Yes, sir; I am speaking of Panama entirely.

Senator SIMMONS. Right there I understood you to say that if you could have bought that pipe as any railroad or any manufacturing establishment could have bought it, you could have facilitated that work. Why could you not buy it as any railroad or manufacturing establishment would?

Mr. WALLACE. I do not know. I had nothing whatever to do with the purchase of the material. My province ended when I said, "I want so many feet of water pipe," or "so many tons of water pipe," or a certain size, according to certain specifications. What hindered the delivery of that pipe, of course, in a general way I can tell you. The first requisitions were made for the pipe while the Commission were on the Isthmus. When I was called up here in the latter part of September, or the first of October, I found the order for that pipe had not been placed, and that was due to the fact that some of the engineering members of the Commission did not agree with me in regard to some of the details of my specifications—some trivial thing; I do not know what it was. And when I came up they asked me if it made any difference if the specifications were changed. I told them no, that it did not; that I did not care what they were, so that I got the pipe. It was merely a technicality that did not amount to anything.

Senator KITTREDGE. When was the order given?

Mr. WALLACE. Of course I have no data to refer to here. The order was given in the latter part of August, 1904.

To my mind, what made the delay in the delivery of the pipe was this: A contract was made with an establishment at Birmingham. When the order was given for material, the Commission, not being familiar with the methods that are ordinarily used by manufacturers and railroads to expedite their deliveries, simply supposed that in some way or other that stuff would finally get down to the Isthmus. Now, in ordinary business, you have got to send your man to the factory, you have got to pound those men to see that they manufacture your pipe, and you have got to see that the railroad company furnishes cars, that the cars are loaded promptly, and you have got to follow it up and see that the railroads handle it and do not sidetrack it; because it is dead freight, that can lie at a place indefinitely, without any damage; you have got to see that it is shipped and loaded promptly and dispatched.

The pipe was sent by schooner from Mobile. The result, as I have arrived at it from my knowledge of the way those things are ordinarily conducted in business life, was that after the manufacturers got that order, they took their time to manufacture the pipe, and if they got a hurry order in from somebody else, that order was filled. The stuff was shipped on the railroad. That schooner could not leave until it got its cargo, and the train would start out of Birmingham with a lot of cars in it, and if the conductor had orders to pick up some freight that was more important, a car loaded with that pipe was set out, and, I presume in a few weeks that pipe was strung all the way along that railroad from Birmingham to Mobile. There was no one that was crowding it, you understand, finding where the cars were, and shoving the stuff along.

After weeks and weeks, that schooner was loaded at Mobile, and it took it three or four weeks to get to the Isthmus. When it came down there (along in January sometime the first schooner arrived), we found that they were depending upon that schooner unloading and getting back to Mobile before we could get any more of that pipe. In the meantime I could not get any information. I cabled the Commission, asked them to expedite it, and suggested that they send me at least some of that pipe by steamer, instead of by schooner. Not being able to know when it would come, and expecting it right along, I had my trenches dug, and they were filling up, caving in; and I wanted to get the pipe in, so as to give those people the benefit of a water supply in the dry season.

The entire result of my efforts and cabling to expedite those shipments in December resulted in my getting a letter from the chairman of the Commission in which he said this, substantially: That the Commission presumed that on account of my free use of a telegraph wire when I was general manager of the Illinois Central Railroad, I did not appreciate the fact that cables were expensive.

Senator DRYDEN. Who was chairman of the Commission at this time?

Mr. WALLACE. That was Admiral Walker. I was delicately informed that I had better not cable quite so much.

Senator SIMMONS. You were cabling about this delay in the delivery of the supplies?

Mr. WALLACE. Yes, sir; I was trying to find out where my material was, when it was going to be shipped, when I was going to get it, and suggesting methods that I thought would expedite its shipment.

Senator TALIAFERRO. When did you make the requisition for the pipe?

Mr. WALLACE. In August, 1904.

Senator TALIAFERRO. And have you any means of knowing when the order for the pipe was placed with the Birmingham factory?

Mr. WALLACE. It was placed some time after I came up here and expedited the order myself. I tried to impress on the Commission that I must have that pipe if we were to have water in the city of Panama within any reasonable length of time.

Senator DRYDEN. It was in October when you came here?

Mr. WALLACE. The order was placed the latter part of October, finally; but it was not placed until I came up to the States personally and took the matter up.

Senator SIMMONS. The pipe was received when?

Mr. WALLACE. The last of the pipe was not received until May, 1905.

Senator TALIAFERRO. And the first of it was received in January?

Mr. WALLACE. The first of it was received in January. I was referring to the last of the principal main. I do not remember when the last of the smaller pipe came.

Senator HOPKINS. That business arrangement was under the Commission headed by Admiral Walker?

Mr. WALLACE. Yes, sir. I do not speak of this in the way of criticism at all, but it is simply an incident to illustrate the laggard way in which Governmental work is performed.

Senator SIMMONS. The ordering of those supplies at that time was under the immediate charge of whom?

Mr. WALLACE. Well, now, to speak in the same way about the supplies there, I was very anxious—

Senator SIMMONS. I mean that class of supplies.

Mr. WALLACE. Yes. These larger classes of supplies were ordered by letter.

Senator KITTREDGE. By whom?

Mr. WALLACE. I, as chief engineer, would write a letter to the chairman of the Commission and specify what I wanted. The head of what we called the material and supplies department on the Isthmus, that was not under my control, was generally furnished a copy of that letter, and sometimes it would be handled by requisition. But if it was a special matter that I wanted to push through, like a requisition for steam shovels and these larger supplies, it was handled by letter, although the chief of this material and supplies department was furnished with a copy of the information. The ordinary supplies, such as lumber and building material and everything of that kind that we needed, were gotten through what we called the material and supplies department.

In August, when the Commission was there, there was a lieutenant in the Navy, a Mr. Tobey, who had had charge of stores at navy-yards and who seemed to be a very efficient, bright, intelligent man, and he was very anxious to have charge of the material on the Isthmus.

I recommended him as a proper person to have charge of that

department, as I thought he was and think so still. He was made the chief of the material and supplies department, and I presumed, naturally, when I asked for his appointment, that he would be on my staff and I would have control of that business. This matter was taken up by the Commission at a meeting at which I was not present, was not asked to be present, as I was not a member of it, and the first thing I knew about the action taken was when I was furnished with a copy of a resolution that the Commission had adopted appointing Mr. Tobey as chief of the material and supplies department and making him absolutely independent of me, having charge of all of the old French stock of material on the Isthmus and all the new material and everything of that sort.

I asked for a hearing before the Commission, and I remonstrated. Under their resolution if I wanted a trip pass to send one of my employees over that railroad, I had to go to Mr. Tobey and ask him for it; and if I wanted to send one of my men to the United States I had to ask him for transportation. He was a young man about 35 years of age. That, to me, who had had control of the issuing of transportation to thousands of men whenever I wanted it, perfectly free, and when I felt it was necessary that I should have it to properly conduct that work, was an intolerable position.

The CHAIRMAN. You were not then the manager of the Panama Railroad?

Mr. WALLACE. No, sir; neither was Mr. Tobey. That transportation had to be gotten from the Panama Railroad.

The CHAIRMAN. Yes.

Mr. WALLACE. It was treated like any other material. I had to go to Mr. Tobey, under that resolution, and he might have said: "Why do you send that man to the United States? Why don't you let him pay his own fare?" or "You are using too many passes." I had to account to him under that resolution for what I did. I remonstrated, and did it so vigorously that the Commission finally, while they would not change the order of things, instructed Mr. Tobey that he should give me that transportation when I wanted it, without requiring me to explain why I wanted it. I did not want to be accountable to him for it.

The way material was obtained was this: A man in my department, say a division engineer, that desired some material, say a dozen shovels, would make out that requisition and it finally came to my office; and when I approved of his having them it went to this Mr. Tobey. If the supplies were on the Isthmus Mr. Tobey delivered him the goods. If they were not on the Isthmus, he took all of his requisitions that he had received probably during that day, it might be for a dozen shovels, a box of pens, or a million feet of lumber, or a coil of rope, or a lot of coal, or a hundred barrels of cement—it made no difference what it was—those were all grouped on a requisition which went to the Commission. They took that requisition and passed it around among themselves.

They would mull over it, and then it would go to the clerk or department that had charge of it, and they would make a reseparation of the articles on the requisition, and would ask for bids under another classification or grouping. The result was that the original requisition number was entirely obliterated in this transaction, and finally,

months and months afterwards, that stuff would come down to the Isthmus, and there was no way of knowing what particular requisition it was to apply on at all. It came there, and if one of my men happened to be at that storehouse and saw stuff that he had asked for two months before, and he was bright and energetic, he would get hold of that stuff, whereas a man having charge of work where the material was more urgently needed, who was not quite so energetic, although he had asked for it two months before, would not get it. I would find that things would happen in that way, and that there would be the same story repeated about not getting requisitions filled, and things were getting into an inextricable tangle.

Senator HOPKINS. That came about through a defective system of bookkeeping?

Mr. WALLACE. Yes, sir; through a defective organization. I had no control whatever over that department—I mean theoretically. Actually, however, Mr. Tobey did everything in his power to help me.

The CHAIRMAN. Did that condition exist during the entire time you were there?

Mr. WALLACE. That condition existed up to the spring of 1905. As soon as the reorganization was effected I made an attempt to get Mr. Tobey placed under me. He did not like it very well, and I was not able to get him placed under me absolutely until I arrived at Colon, May 24, 1905, with the additional powers that had been vested in me as Commissioner and as a member of the executive committee.

Then I took charge of Mr. Tobey and we commenced to revise our system of requisitions. I understand they have now got the matter very much simplified and straightened out; but a larger part of the material for which requisition was made during the year that I was on the Isthmus and during the first part of that year had not arrived there before I left the Isthmus in June, 1905.

Senator SIMMONS. Then you think that in the reorganization they have acted very wisely in establishing agencies over here in this country, with men whose duty it is to look specially after the forwarding of this freight and keeping up with it, to see that it goes forward promptly?

Mr. WALLACE. Yes; that is an absolute necessity.

Senator SIMMONS. And the lack of that was the cause of the delay in getting the material, very largely, when you were there?

Mr. WALLACE. Yes, sir. That is, you first want to get the material—I mean, you ought to buy it, or order it promptly when the chief engineer makes requisition for it; and the next step is to see that you get it to him after it is ordered. The way advertising for bids cuts a figure is that where you advertise for competitive bids I presume it is at least sixty days after the man on the Isthmus makes the requisition for his stuff before the order is given in the market. Then it may be thirty days or sixty days more before you get the stuff—that is, when things are working in the ordinary routine way in which they are handled in the Departments. So that if you want 500 barrels of cement it would be about four months before you could get it.

In order to rectify that, under this new organization the President gave Mr. Shonts, who was to have charge of the department of purchasing, a power to go into the market and buy that stuff and ship it down to the Isthmus; and it was very proper to give it to him.

That was an exception from the ordinary way of doing things, the necessity for which grew out of our first year's experience there.

Senator TALIAFERRO. That order applies more particularly to emergency orders for material, does it not?

Mr. WALLACE. Yes, it does; but half the stuff you buy there is emergency material. Every day something develops and you find it necessary to get some material.

Senator HOPKINS. And to get it quickly?

Mr. WALLACE. To get it quickly, yes; and that time will never cease until you actually finish the work.

The CHAIRMAN. It is not until three or four months after you have made an order at Panama that you receive the goods ordered?

Mr. WALLACE. If everything works smoothly. They have expedited it now, Mr. Chairman, on account of the ability to buy in the open market; but during my experience there it ran from six to nine months. Then one of the great troubles I had about getting material was that it would not come down there in properly regulated quantities. For instance, when I found in the winter time that I was not able to get the labor to do this work with, I wanted to get mules and scrapers and harness, in order that I could grade some of these temporary tracks that were necessary to be put up.

I got the mules inside of thirty days, because they were able to get them from the army purchasing department, and they took the matter up and made an emergency out of it; they had the mules, and they sent them to me; but the scrapers were not on the Isthmus when I left there, to my knowledge, and that was six months afterwards. I had the mules, but they did not do any good without the other appliances.

Senator KITTREDGE. You spoke earlier in your statement this morning about the failure to promptly furnish lumber and building material. Who was at fault? What was the trouble about that?

Mr. WALLACE. Well, one trouble about that was that the Walker Commission were very susceptible to criticism, and they endeavored to follow very closely and very particularly the ordinary regulations in regard to contracting material, and they were criticised so at the start for not letting all sections of the country have an opportunity to furnish this material that their bids were exceedingly complex when they got them in. When a requisition for lumber was received, they would undertake to analyze the requisition to see if they could not pick out part of it that could be furnished in Oregon fir, or another part of it that could be furnished from some other section of the country; and a requisition for a certain bill of material would be all split up.

For instance, we made a requisition for a bill of material to build one of these hotels that I am telling you about. Part of that order was placed among various firms in Louisiana. One firm might be the lowest on timber of a certain dimension, and another might be less on timber of some other dimension. Part of that material had to be yellow pine in order to withstand the ravages of the insects, and also on account of its strength. Part of it they wanted to place in Oregon fir or California redwood, which will also withstand the ravages of the insects, but which can only be used for certain parts of a building. You can not use it in places where great strength is required, but you



can use it for siding and things of that sort. The result was that if we had waited until all that stuff had arrived there and been delivered, why I do not know whether we would have had a hotel up there yet or not.

Senator DRYDEN. Was this delay due to any extent to the lack of transportation facilities on the Isthmus?

Mr. WALLACE. No, sir.

Senator DRYDEN. You found those transportation facilities all right, did you?

Mr. WALLACE. I should like to go into that a little later, because that is rather a broad question.

Senator DRYDEN. All right.

Mr. WALLACE. And it is quite an extensive one.

Senator DRYDEN. Very well.

Senator HOPKINS. Before you leave the point you were just speaking about, is it your judgment that it would have been better to have taken that order and placed it with one firm and let them furnish the redwood and the yellow pine, and all that?

Mr. WALLACE. Of course, from my point of view. I wanted the material, and I wanted to put up the building.

Senator HOPKINS. Yes.

Mr. WALLACE. I did not care whether California had any recognition or whether Louisiana or Michigan or Maine had any, or anything else of that kind.

Senator HOPKINS. Yes.

Mr. WALLACE. The only thing that appealed to me was to get the stuff to put up the building that was needed to provide accommodations for our men.

Senator HOPKINS. Then it is your charge, is it, that the Walker commission was catering a little to the political sentiment of the country and distributing these orders over different sections, so as to allay, if they could, criticism?

Mr. WALLACE. Yes. I do not wish to criticise them, because they are not responsible for that. The system of doing the work under governmental control is responsible for it. I mean, you take any body of public men that have to decide those questions and it is almost impossible for them to remove themselves from that what I call a political influence, you understand?

Mr. Grunsky was on the Commission from California. He was a perfectly honest and upright man, and had the interests of the work absolutely at heart, as every other Commissioner had, but he was not able to resist the influences of the people of California that he knew, and who were his friends, when they wanted him to do everything that he possibly could, consistently, to get redwood used, or Oregon fir used, and it delayed the work.

Senator TALIAFERRO. There was absolutely no necessity for the mixture of these woods?

Mr. WALLACE. No, sir.

Senator TALIAFERRO. The yellow pine would have answered every purpose?

Mr. WALLACE. The yellow pine would have fulfilled every requirement.

Senator TALIAFERRO. And really would have been more suitable?

Mr. WALLACE. And really would have been more suitable, but I have had orders held up while I was asked to designate as nearly as I could what parts of my bills of materials could be filled with Oregon fir, or with California redwood, or something else.

Senator TALIAFERRO. Showing a disposition to divide these orders among different sections of the country?

Mr. WALLACE. Yes, sir. From one standpoint, that is perfectly fair and there is no criticism to make of it; but the point I am trying to make is that we did not get the stuff as promptly as we would have gotten it if those conditions and limits had been disregarded. In other words, my point of view was that it was our business to build the canal as cheaply and economically as possible, and that private interests, political interests, and matters of that kind had nothing whatever to do with it, and should not be considered. I may be absolutely wrong in that, but that was my point of view.

What led me into this statement was my desire to answer this general criticism that provision had not been made for these men, and to explain the workings of the supply department.

Senator MORGAN. Have you finished on that branch?

The CHAIRMAN. I think Mr. Wallace is going on to tell us the conditions down there, and he will be through in a little while, Senator.

Senator MORGAN. I was going to ask him in regard to the conditions as to the feeding of the laborers.

The CHAIRMAN. He will get to that in a few minutes, I think, Senator.

Senator HOPKINS. He has not reached that point yet.

Mr. WALLACE. Of course, we had water supplies put in at all our camps like Culebra and Bas Obispo and at Bas Matachin, where the shops were located, and we also took up the water supply and sewerage question at Colon.

Senator KITTREDGE. When was that?

Mr. WALLACE. That was at the start. Mr. Davis had a corps of engineers assigned to the consideration of the question of the sewerage and water supply for Colon. The situation of Colon, however, was radically different from what it was at Panama. We had to make extensive surveys to determine a water supply, and it was a very difficult matter to get it; and after we got it, we could not get the ground. The ground was owned by private parties, and the situation was such that we were not able to get possession of that land during the last dry season; that is, the dry season of 1904. Consequently it had to go over until the dry season of 1905, the present dry season. What they are doing now in that respect I do not know. In the meantime a temporary water supply was provided for the getting of water into the Commission settlement at Cristobal Colon, which immediately adjoins Colon, and I believe they have always had sufficient water there; not an abundant supply, but a sufficient supply.

Senator HOPKINS. At Cristobal?

Mr. WALLACE. Yes, sir; at Cristobal Colon.

Senator HOPKINS. How was it at Colon before any action was taken by the Government of the United States?

Mr. WALLACE. The Panama Railroad brought in some water down there from the Monkey Hill reservoir, which is a very small one, and at times they brought water in there from other points on their line in tank cars.

Senator HOPKINS. What was the population of that city prior to the Government of the United States acquiring the interest down there?

Mr. WALLACE. It was about 4 000.

Senator HOPKINS. And these people were supplied with water in the manner you have indicated?

Mr. WALLACE. Yes.

Senator HOPKINS. What about the sanitation of the city prior to the American interests being acquired there?

Mr. WALLACE. Apparently Colon looked worse than Panama, but it was a great deal healthier at Colon than it was at Panama.

Senator HOPKINS. Yes.

Mr. WALLACE. There is a narrow strip of ground there that is about three or four feet above the sea level, immediately along next the harbor line, and then there are about three streets of houses back of that, and a great many of the houses, particularly those that the negroes live in, are over the swamps; and it is true that frequently those people just pick up a board and the excreta goes into the swamp below them; but that swamp is so full of animal life—I mean of animal life that acts as scavengers, the same way the buzzards do in Panama—that I have never heard any complaint of any disease emanating from that condition as far as sanitation was concerned.

Senator HOPKINS. While it might look bad to a casual observer, as a matter of fact it was not so?

Mr. WALLACE. No. Another situation there was this: Cristobal Colon, which was the town up around the point right above Colon, that was owned by the Commission, and inside of the Zone, was cleaned up at the very start; the gutters were cleaned out and they had cement gutters there; the rain-water barrels were covered with oil and screens to keep the mosquitoes from breeding in them, and that place was thoroughly sanitary. But during my administration there I found that that quarter was filled up with negroes that did not work over a day or two in a week; and I established a rule that if a man did not work a certain number of days, a certain percentage of his time, he had to give up the Government house and get out, and we would put somebody in there that would.

The result was, owing partly to that and partly to the fact that every now and then vessels would come in there that would have to be unloaded, and high wages would be paid the negroes to unload the vessels—higher than we were paying for work on the canal—that these negroes preferred to be independent of our regulations, and preferred to be in a position where they could take advantage of this high rate of wages and work a shorter length of time; they preferred to go and pay rent in Colon rather than live in the Commission houses, which were clean and sanitary and free, at Cristobal. That is the reason that the negroes are in these houses and in such large numbers at Colon.

Senator HOPKINS. Yes.

Mr. WALLACE. Then, another fact was this: That land was all owned by the Panama Railroad Company at Colon, and these houses were built on ground leased from that railroad company. As soon as the Commission took hold of the Panama Railroad, not knowing what our final plans would be about raising Colon and changing the harbor and everything of that sort, we notified the railroad company not to

extend any of those leases, and the result was that those men, not having leases for any definite length of time, could not afford to put up decent, respectable houses, naturally, and they simply kept these shacks that they had there by spending just as little money on them as they could.

Senator DRYDEN. Do you know about what the rate of mortality is at Colon?

Mr. WALLACE. It was very small. It was much healthier than at Panama, and always has been.

Senator KITTREDGE. Why is that?

Mr. WALLACE. Well, Panama is a town that I do not presume, Mr. Senator, has been cleaned for two hundred and fifty years, and Colon has only been in existence about fifty or sixty years.

Senator MORGAN. Then, again, I think, and I want to ask you whether you think, that at the ebb tide there is a very large exposure of mud around the entire area of the Bay of Panama, reaching out for 2 or 3 miles.

Mr. WALLACE. It reaches out about a mile, I should judge.

Senator MORGAN. Yes. Well, upon that at the flow of the tide, I suppose, large masses of vegetable matter, seaweed, shells, fishes, and dead animals of various kinds drift in and lodge there, do they not, and fester and rot on that coast?

Mr. WALLACE. There is a condition there that might make that possible, but there is very little of that.

Senator MORGAN. There is very little of that?

Mr. WALLACE. Yes. Of course there is a slime on top of these coral rocks that are exposed at low tide, but I never noticed any particular smell arising from it, because they have nature's scavenger system there that is adapted by Providence for these tropical countries—that is, there are thousands of buzzards, and no refuse is thrown out into the street or anywhere else that these birds are not down on it in a moment. They congregate about the water front, and as soon as the tide goes out, if there is anything left they are after it right away.

Senator MORGAN. I suppose the evaporation is rapid, too, owing to the sun.

Mr. WALLACE. Yes, sir; very.

Senator MORGAN. At night, though, it is always cool, is it not?

Mr. WALLACE. Yes, sir.

Senator MORGAN. About what is the temperature?

Mr. WALLACE. Well, our records will show that. I do not remember, but about midnight, between midnight and morning, it gets down in the neighborhood of 70. It was coolest about 3 o'clock in the morning.

Senator MORGAN. That would condense whatever matter there was in the upper air and bring it down upon the surface of the earth?

Mr. WALLACE. Yes, sir.

Senator MORGAN. Are there any steady winds there to carry this matter off into the sea?

Mr. WALLACE. In the dry season the trades blew continuously for about four months.

Senator MORGAN. Yes.

Mr. WALLACE. The trades blow the most of the year; and during the trades, why, of course there is a constant breeze. The trades are

more perceptible at Colon than they are at Panama, and that is one of the reasons, I think, why Colon is more healthy than Panama.

Senator MORGAN. Owing to the prevalence of the winds?

Mr. WALLACE. Owing to the prevalence of the winds. There are sea winds blowing in toward the shore.

Senator MORGAN. The wet season is your unhealthy season there?

Mr. WALLACE. I could not see very much difference. The unhealthy period seemed to be just about the change of the seasons. I think May is probably the most unhealthy month—April and May, when the wet season comes on.

Senator MORGAN. When the winds are changing?

Mr. WALLACE. Yes, sir.

Senator MORGAN. Or rather, when the trades are ceasing to blow?

Mr. WALLACE. Yes, sir.

Senator MORGAN. Then it becomes wet, and from that on, for five or six months, there is very little wind?

Mr. WALLACE. Yes, sir; there are two culminations. There is a culmination of the heaviest rainfall generally in May, and then the next culmination is generally in October.

Senator MORGAN. Those are the sickly seasons?

Mr. WALLACE. Well, I do not know as to that. It is just about the same. My experience was that all the year round we would have periodical outbreaks of yellow fever.

Senator MORGAN. Yellow fever is not the worst disease in the Isthmus, is it?

Mr. WALLACE. No, sir; not by any means.

Senator MORGAN. The Chagres fever, as it used to be called, and the bilious intermittent fevers are worse?

Mr. WALLACE. Yes; and the malaria—what they call the pernicious fevers.

Senator MORGAN. Yes; those are the fevers that really interfere with the work there more than yellow fever or any other?

Mr. WALLACE. Yes, sir; that is, probably where we have one man go to the hospital we may have a dozen that will be affected just enough to make him inefficient in his work.

Senator MORGAN. I mean, in their effect upon labor?

Mr. WALLACE. Yes, sir.

Senator MORGAN. Rather than upon human life?

Mr. WALLACE. Yes, sir. You have led me away from my consecutive line of thought now. I do not remember just what point I had reached.

Senator MORGAN. I beg pardon for doing it, but the subject seemed to be pertinent.

Mr. WALLACE. Whichever way you gentlemen get the most information. I do not care.

The CHAIRMAN. I think you had better proceed with your consecutive statement.

Senator TALIAFERRO. Yes; take your time to get back to it.

The CHAIRMAN. Proceed with your narrative.

Mr. WALLACE. I think I have explained that during the year we did everything that was possible under the circumstances to provide for our men, both in providing for a water supply and in our sewerage arrangements at Panama and in our housing of them.

Senator HOPKINS. As I understand you, under the supervision of General Davis the same thing was done at Colon?

Mr. WALLACE. Sir?

Senator HOPKINS. While you were at work at Panama on your water system and sewer system and sanitary system, generally, General Davis was at work with men over at Colon?

Mr. WALLACE. No, sir; that was not General Davis. That was a Mr. Davis, a waterworks and sewerage engineer that reported to me.

Senator HOPKINS. Oh, I misunderstood you.

Mr. WALLACE. Yes, sir.

Senator HOPKINS. You were referring to Engineer Davis?

Mr. WALLACE. Yes, sir.

Senator HOPKINS. So that the work was going on simultaneously at both places?

Mr. WALLACE. The work was going on simultaneously.

Senator HOPKINS. Yes.

Mr. WALLACE. The way that I had my force divided up when I left the Isthmus was about this: Approximately one-third of the men were engaged in building quarters or on the sewerage and water supply works; about one-third were employed at Culebra, and the other third were employed in various kinds of general and preparatory work, like getting machinery ready, and on surveys, and things of that sort. Altogether there were on the rolls when I left there between eight and nine thousand men. The total number was 8,848 men in all the departments that were under my jurisdiction. Then, in addition to that, the sanitary department, in ditching and draining and fumigating houses, and cleaning up the Isthmus generally, must have had in the neighborhood of between two and three thousand men. I do not know how many they had, but it was over two thousand.

Senator HOPKINS. What were these eight thousand and some hundred men doing?

Mr. WALLACE. Twenty-three of them were on my personal staff. Two hundred and one were in the quartermaster's office; that was in the office that kept track of the time and of seeing the men when they came on the isthmus; finding places for them to stay, and looking after their transportation and their commissary department. Seven hundred and three of them were under the control of this chief of the bureau of materials and supplies; taking all of the material when it came in, guarding the storehouse, issuing material, and work of that kind. One thousand four hundred and eighty-five of them were engaged in the construction of water and sewerage works; 1,597 were engaged in the construction and repair of buildings to furnish quarters; 1,235 were engaged in the mechanical shops—that is, repairing French machinery and helping erect American machinery, and work of that character, and doing whatever work was necessary in our mechanical shops; 2,900 were at work at Culebra in construction and preparatory work, and the rest of them—

Senator HOPKINS. Right there. what do you mean by construction and preparatory work? Just explain that.

Mr. WALLACE. I intended to take that up separately.

Senator HOPKINS. If you have a plan in your mind, then go ahead. I do not want to interfere, because I think you can perhaps make it clearer to the committee in your own way.

Mr. WALLACE. What I would like to make clear by this statement is that I endeavored to balance the force. For instance, we could not put all our men on our buildings, because we did not have the material. We could not put all our men on our water supply and sewerage work, because we did not have the material, and those men had to have some places to stay. We could not put all of our men on sanitation.

These two or three thousand men that were doing sanitary work had to be provided with houses, and we had to have carpenters to build them. In other words, the whole thing had to be carried on as a certain harmonious whole, and it did not seem to me to be policy, or practicable, to stop all classes of work and simply push forward one at a time. That is to say, they all had a certain relation to each other that had to be studied and considered.

To commence at Culebra, for instance, we found, as I said before, about 500 men there at work. To have stopped that work entirely would have been to have thrown those men out of employment. They were living there, a great many of them with their families; and this principle is true about an organization of that kind that is true in physics: It requires about fifteen times the power, or twenty times the power in some cases, to start a train from a dead rest up to a given number of miles per hour in a certain distance more than it does to maintain that speed after it is once acquired. It is just the same way with an organization of that kind.

Here was a start made, and here was an organization, a certain number of foremen, a certain number of workmen, and the work was going ahead, and the Walker Commission and myself thought that it was policy to continue that organization and gradually enlarge it and expand it, because we had it going, and while we had to change the French methods, while we were not able to get materials and supplies there in properly related quantities, other than steam shovels, yet it was economy, from my standpoint, to gradually expand that operation and never let that work stop. Whenever you let it stop you disorganize your force, and then you have to commence all over again. Then, also, those men were well quartered, they were well provided for, and there was no reason why we should stop it.

Senator HOPKINS. Then the work that you were doing there was necessary work, regardless of the ultimate determination of the character of canal that should be constructed?

Mr. WALLACE. Yes, sir. Now, another point. These men were being trained all the time; they were being disciplined; we were teaching them, and they were learning new ways of doing things—learning our methods—and it was, you might say, a training school.

The first thing that we attempted to do there was this: The French were digging holes along that summit cut, hauling the stuff out and piling it in ravines up in the side of the mountains and hauling it up grade by steam. The first thing I tried to do was to shape that work up and cut these barriers out in order to get drainage. The next thing I tried to do was to take this blanket of wet clay that was sliding down off the top and get that out of the way.

I had a regular system outlined in my mind for that work, and everything that was being done there was being done on a certain definite plan. Of course, my subordinates did not know what that

plan was. A great many features of it I had never formulated in writing, because up to the time I left there it was unnecessary that I should. I wanted to give that work a full year's thought and study and experience before I committed myself to a written expression of what I considered my views as to the best way to handle it as to methods and arrangement and everything; and that is what I intended to put in my annual report, if I had been permitted to make one.

Senator HOPKINS. The work that you were doing there was both in the dry and the rainy season?

Mr. WALLACE. Yes, sir.

Senator HOPKINS. So that you were the better prepared then to make estimates as to the cost of excavation in both seasons by reason of the work that you did?

Mr. WALLACE. Yes, sir. The work extended over a full complete year, and we tried thus to keep very close tab on our costs at every step.

In the modern management of railroads and manufacturing plants efficient results are obtained by the ability to tell definitely the relative efficiency of men, methods, machinery, and appliances by some unit of measure. For instance, on a steam railroad the unit of measure is what it costs per ton per mile to handle freight. In the case of a manufacturing plant, what it costs to manufacture an article, and the cost of every step in the manufacture of that article, is the thing that determines the efficiency of the men and the machinery and the methods that are used.

That is exactly what I tried to do down there. For instance, the cubic yard of material in that cut was my raw material. The cubic yard of material finally disposed of was my finished, manufactured product. I wanted to know what it cost to mine that material, what it cost to load it, what it cost to transport it, what it cost to dump it and dispose of it, what it cost to keep up the tracks—what every individual step cost, you understand.

The first object was to train the men to keep those costs, and to keep them accurately. That was training. The second object was to determine the efficiency of the machinery. We put to work French excavators, for instance, that we had there; and I wanted to know, before I destroyed that machinery or scrapped it or bought American machinery, how much per yard it cost to do the work with that machinery. I knew what I could do with the steam shovel, and the comparison would show me whether it was economical to throw that stuff away or try and keep it. I wanted to get the information that would protect myself and the Isthmian Canal Commission when we were investigated by you gentlemen or the gentlemen on the other side of the building here, and they wanted to know why we threw away machinery that cost the French twenty-five or thirty millions of dollars; and this process of cost keeping would have demonstrated in dollars and cents the correctness of that policy.

Another thing that it did was this: What it cost each group of men to mine a cubic yard compared their efficiency. What it cost to load with every different steam shovel compared the efficiency of one shovel and one crew with another. What it cost to transport the stuff showed the efficiency of the various men in the transporta-



tion departments. And that unit of efficiency was such that if it had been continued and carried out, properly analyzed and properly applied, it would give the man in charge definite information as to the comparative value and efficiency of every method, every man and every appliance on that work.

I did not claim that when I got through, because the cost of that work was an average of 43 cents a yard in March, that 43 cents was what that work could be done for. When we came to May, and it went up to the vicinity of 80 cents, and my men came to me and wanted to stop because they thought it was not economical, I said, "No, it is not the fact;" for if I knew what made this work cost 80 cents a yard, it was just as important as it was to know that it cost 43 cents in the dry season. If it was the 13 inches of rainfall that we had in May that made that average of 80 cents, that was one thing. If it was the change to the eight-hour-a-day basis, there was another element. If it was our using French machinery that was being derailed ten or fifteen or twenty times a day, that was another element. In other words, it was not the cost, but it was the conditions under which that cost was determined, that made those figures of value.

Senator HOPKINS. You developed enough there, did you not, Mr. Wallace, to determine that the use of the French machinery was not an economical way of constructing the canal?

Mr. WALLACE. Yes; yes. The reason I have gone into such a prolix explanation of this cost business is because I have been publicly criticized by men high in authority because, it was said, I was misleading myself; and I wanted simply to show you gentlemen that the process was a proper one, and that it was thoroughly scientific. The day has gone by when a great, large piece of work can be properly supervised by somebody going around and saying to this man, "Do this," and to that man, "Do the other thing." You must have a knowledge of the results of every man to determine whether or not that man is doing his work properly.

Senator HOPKINS. One thing that your investigation there determined, did it not, was as to the approximate cost of excavating a cubic yard of that cut in the dry season and another in the wet season?

Mr. WALLACE. Yes, sir. That is, I had it not only for the twelve months that it was under my own jurisdiction, but I had it for a short time before that, when the French (although they did not keep it subdivided) had the total cost. In deducing what I thought the cost per cubic yard would be, I took each item; for instance, here I got a certain cost per cubic yard for mining, and I analyzed it in this way: This mining was being done with hand drills or with steam drills. Now we substituted American machinery.

From my knowledge of what could be done with American machinery, considering the labor conditions and the climatic conditions, I was able to make a very intelligent approximation of what that item would be. I did the same way with the steam shovels. I knew what a steam shovel should do, provided we kept cars placed to it. I knew what I could do with American locomotives and American cars, how much it would cost me to lay my tracks and maintain them with American rail. And from using these figures to give me the

influence of the labor question, the climatic question, and then applying to that my experience with American machinery, I was able to deduce what I thought these various steps in the work would cost on an average, wet season and dry season.

Senator KNOX. In other words, as I understand you, when you once definitely ascertained the cost per yard (taking that, as you say, as your raw material) of the removal of a certain number of yards of material and the difference between the cost per cubic yard under one method and that of another, and then took into consideration the number of yards to be removed, you would very quickly ascertain which was the wiser plan—to continue the old method or to adopt the new?

Mr. WALLACE. Yes, sir; that is it exactly.

Senator KNOX. Just as I have known in my own experience of a large manufacturing establishment having thrown out a method that was under construction, costing a million and a half of dollars, and throwing it into scrap before it got into operation, because another method had been discovered in the meanwhile for producing the product at so much per ton less. That is the same theory?

Mr. WALLACE. That is just exactly the same theory, Senator, that I was at work on, you understand. Now, it certainly seemed to me that while the results that I might obtain might not be absolutely correct, any approximation of correct results was better than a mere wild guess without any data whatever.

Senator KNOX. You were working on the right theory, whether you got the exact data or not.

Mr. WALLACE. Yes.

Senator HOPKINS. I suppose, Mr. Wallace, that another problem that you had to determine was where to dump this material that you were to take out?

Mr. WALLACE. Yes, sir. Now, I could tell, under this system, how many cents per cubic yard it cost to dump material at a certain dump. I could tell whether it was more economical to haul that material up hill with a short haul or to haul it 10 or 15 or 20 miles downhill on a long haul.

Senator KNOX. Did you have a cost sheet?

Mr. WALLACE. Yes, sir.

Senator KNOX. How often was that made out and submitted to you?

Mr. WALLACE. I had a daily cost sheet that showed me the steam-shovel performances every day. I got that at about 9 or 10 o'clock every morning for the day before, whenever the mail came in, for such items as could be determined from the daily reports. Then I had a monthly cost sheet that gave me the full details.

Senator KNOX. And this was all itemized?

Mr. WALLACE. Yes, sir.

Senator KNOX. Covering every cost that entered into the removal of this dirt?

Mr. WALLACE. Yes, sir. Of course at first these were crude, because the men that I had there were not accustomed to that sort of thing.

Senator HOPKINS. As you have said, you had to educate your men, as well as to make your other experiments on the cut there?

Mr. WALLACE. I had to educate the men; yes, sir.

Senator DRYDEN. Had you at the time of your resignation fully developed and completed your organization and your investigations?

Mr. WALLACE. At that time I had enough technical data in my mind to enable the board of consulting engineers or the Commission to determine the general questions of plan. I had enough data to enable me to make a determination of my own mind of what I considered the best methods to use, although of course none of these were actually formulated.

Senator DRYDEN. Do you know whether your successors have continued the plan which they inherited from you in this organization?

Mr. WALLACE. No, sir; I do not, except in a general way. I judge this, though, that it is hard enough to get men to do what you want them to do even if the power above them thoroughly understands that they can do it and are required to do it. When they are at work on a system that is only supported in a half-hearted way, or the utility of which has been criticised by others higher in authority, it is hardly fair to expect that those men would exercise the same care and the same accuracy in that work as they would otherwise.

To what extent these costs are kept up or not, I do not know. I knew they went very high immediately after I left there; and when Mr. Stevens arrived on the Isthmus, about the 1st of August, I have been informed that he found things in a very demoralized condition.

Now, that was not due to my resignation. It was due to my treatment when I resigned, and also resulted from the fact that as the men that I left on that Isthmus had seen their chief discredited in a way, and knew that a successor was to fill his position that had been selected with an idea that everything that I had done was subject to criticism, there was not a man there that felt his place was secure, and the result was that there was naturally complete demoralization. That would happen anywhere.

Senator DRYDEN. Did many of the skilled and scientific men resign and leave the service that were under you?

Mr. WALLACE. Some of them did, and some of them remained.

Senator HOPKINS. I understand you to say that you have no more definite information as to what course has been pursued since you left than any other intelligent citizen?

Mr. WALLACE. No, sir; nothing more than any of you gentlemen have from what you see in the newspapers, or have read in the various publications.

Senator DRYDEN. But yet you had information to the effect that the cost of doing this work was materially increased after you left?

Mr. WALLACE. Oh, yes; very much so. The way I saw that was this: When I appeared before the advisory board of engineers the first time, they did not know what information I had. They were strangers to me—that is, most of them were—and I said to them that I thought we could save their time and mine if they would not ask me questions where they could get the information at any other place, but would confine themselves to getting such information from me as they were not able to get from others. They said that they thought that I could be of the most service to them if they would turn over to me the galley proofs of their examination of Mr. Stevens and the various engineers on the Isthmus, and let me read the questions and read the answers, and see where they were, just as if I had been a member of the board myself. One of the gentlemen used about these words:

"Mr. Wallace, if you will read these questions and these answers, you will see what we tried to find out. From the questions you will see what we tried to find out, and you will see from the answers what we did not find out. Now," he said, "if you can take these home and study them, and give us that information, we will be very much obliged to you."

In that information was the costs for, I think, July, September, and August after I left there. I can give you those here, if you care for them.

In the month of July, 1904, the average cost was 64½ cents.

Senator MORGAN. For what?

Mr. WALLACE. Per cubic yard, for excavation and disposal.

Senator MORGAN. In earth, not in rock?

Mr. WALLACE. No; that was rock and earth together. That is the average.

Senator MORGAN. The average—yes.

Mr. WALLACE. The average. In August it was 50 cents; in September, 56; in October it was 52; in November, 47; in December, 50; in January, 48; in February, 46½; in March, 43; in April, 52; in May, 84; in June, \$1.02; in July, \$1.03; in August, \$1.54; in September, \$1.44.

Senator KNOX. What year is that?

Mr. WALLACE. That was commencing in July, 1904, and ending in September, 1905. It made the average cost per cubic yard about 71 cents; but the average cost for the twelve months under my jurisdiction there was, I think, 58 cents.

Senator DRYDEN. Mr. Wallace, the fact that you have not left any record of your plan, your scheme, the general purposes of your organization—that, as you have testified, even your own subordinates did not understand it any further than the particular duty of each particular subordinate might go—would necessarily leave those who succeeded you in the dark?

Mr. WALLACE. Well, you misunderstood me. All these records were down there, you understand. Every scrap that has been done was there. But what I meant to say was that the general summing up of the results of the year's work was a thing that I could not do until the year was through; and that was what I wanted the Secretary to let me do before he accepted my resignation. I wanted to formulate the results of all my work, to give my conclusions from my study, and to give my recommendations. That was a work that it would have taken me all the way from one to two months to have gotten up; and in my suggestion to him as to how my connection with the work could be terminated without embarrassment to the administration or injury to the work, that was exactly what I outlined to him that I wanted to do—to formulate my results in the form of an annual report, collating all this information, technically and in every other way.

Senator DRYDEN. But that you did not do, as a matter of fact, did you?

Mr. WALLACE. I was not permitted to do it.

Senator DRYDEN. No, no; I am not speaking to that particular point, but to get at the fact whether or not you did formulate that so that there was any record left of the plan of your organization.

Mr. WALLACE. No; I did that finally to such an extent as the board of consulting engineers desired it, in order to enable them to come to their conclusions in regard to the general plan of the work—how long it would take to do it and what it would cost.

Senator MORGAN. You say "finally." At what time do you mean you brought that up?

Mr. WALLACE. That was in October; that was when the board invited me to come back and appear before it. I am informed that that was in November.

Senator DRYDEN. The point I have in mind, Mr. Wallace, is (without imputing any wrong or fault or neglect of duty to anybody here), your successors, if they had no record of what you had done for the twelve months in the way of developing your organization and your system, would necessarily be in the dark, and they would necessarily have to travel over considerable of the same ground and in the same way that you had previously done it.

Mr. WALLACE. That is exactly true, except this: They, of course, had all of these costs there, even to the most minute detail; the organization was there, and the men were there that had performed these various details.

Senator HOPKINS. The costs, from your own records and from your own knowledge of the conditions down there, would vary from month to month, anyway, would they not?

Mr. WALLACE. Oh, certainly.

Senator HOPKINS. And as you went deeper into the cut the expense per cubic yard would be greater, would it not?

Mr. WALLACE. No, sir.

Senator HOPKINS. It would not?

Mr. WALLACE. No, sir; that does not necessarily follow. If you dig a narrow ditch the deeper down you go into it the more it will cost, but in a large excavation like that the only part of the excavation that would necessarily cost more than another on account of depth would be the central first cut that a steam shovel would make at each level; do you see?

Senator HOPKINS. Yes.

Mr. WALLACE. Because, after you get the first level down here, you have got these terraces up on the side of the canal, and the farther down you go the more shovels you can work.

Senator TALIAFERRO. You say that they did not have a full report of what you had done and what you thought should be done when you left there, Mr. Wallace?

Mr. WALLACE. That is, they did not have an analysis of my work, you understand, and a summing up of the whole situation from me, together with my recommendations and my views.

Senator TALIAFERRO. Why did they not have that?

Mr. WALLACE. Because the Secretary of War told me that he did not care for it; he had not any use for me or for any of my counsel or advice, except that he wanted me to stay down on the Isthmus and boss that job as a superintending engineer. When I offered to give him that, you understand, to take all the time that was necessary to do it, and remain connected with the work just as long as he desired me in an advisory capacity, he declined, and declined in such a way that it almost crushed me.

Senator MORGAN. Do you mean he declined angrily?

Mr. WALLACE. Yes, sir.

(The committee thereupon took a recess until 2.30 o'clock p. m.)

---

AFTER RECESS.

TESTIMONY OF JOHN F. WALLACE, ESQ.—Continued.

The CHAIRMAN. Did we leave you at a point where you can proceed with your statement, Mr. Wallace?

Mr. WALLACE. Yes, sir. I should like to correct what I am afraid was a wrong impression that the committee received this morning, and that is that I had made no reports of my work on the Isthmus.

The CHAIRMAN. I think you did leave it a little in that way. I understood you, but I think some of the Senators did not.

Mr. WALLACE. The idea I was trying to convey was this: That I did not get an opportunity to make a report which would be a summation of the entire year's work.

The CHAIRMAN. I so understood you.

Mr. WALLACE. And one that would block out the future progress of the work.

Primarily, on the 1st of February, 1905, the engineering committee of the old Walker Commission came to the Isthmus and I made to them a short, condensed, comprehensive report of the organization and the work accomplished, with comments and recommendations, and the advantages and disadvantages of three different types of canal and the estimates therefor. That report has never been published. When I came north in the spring I found that it had not even been printed, and I personally secured the printing of it.

While the information in it has been used in all sorts of ways, I have received no credit for having ever made that report. It is very short and condensed, and I would like to have the privilege of presenting a copy of it to this committee and having it embodied in your record, because the matter in it is original.

The CHAIRMAN. It will be put in the record.

(The report referred to will be found at the end of to-day's proceedings.)

Mr. WALLACE. Then, on account of the detached way in which you gentlemen are getting this information from me, I have prepared four or five pages, giving simply a condensed description of the year's work, that may have something in it that you might fail to bring out; and I would like to submit that.

The CHAIRMAN. Do you wish to read it?

Mr. WALLACE. All the information contained in it will come out by these questions that you have asked me, only this presents it in a condensed, continuous form.

The CHAIRMAN. You have it ready to go into the record?

Mr. WALLACE. Yes, sir.

The CHAIRMAN. It will be made a part of the record of to-day's proceedings.

The statement referred to is as follows:

SUMMARY OF WORK ON PANAMA CANAL—JULY 1, 1904—JUNE 30, 1905.

By JOHN F. WALLACE.

The engineering party stationed at Cristobal was engaged upon surveys, technical examinations, and other work on that portion of the canal between Colon and Gatun, including Colon Harbor. Trial lines extending from Limon Bay to the curve at Gatun were run to determine whether the French alignment could be improved upon, and the general result was that sufficient facts were secured to determine the location of the canal in the vicinity of Colon, and the plan of operation, including the necessary wharves and docks.

Information was obtained and the details furnished on which to base a decision as to the general features of the principal problems connected with the harbor, the entrance to the canal, and the Gatun diversion. Plans and estimates were made for the construction of a breakwater for the protection of Colon Harbor, a direct entrance into the canal line, the construction of an inner harbor at Cristobal-Colon, and the completion of the construction of the Gatun diversion.

Extensive examinations were made to determine the advisability of a dam across the Chagres Valley in the vicinity of Gatun, and surveys and trial borings were made on every locality which gave any indication of promise. It was developed, however, that bed rock did not exist at any less depth than 200 feet below sea level at Gatun and not less than 163 feet at any point north of Bohio, and no satisfactory location for a dam in the vicinity of Gatun was found.

Surveys and examinations were also made to obtain data to determine the advisability of the construction of what is known as the Tiger Hill Cut-off, an alternate plan for the location of the axis of the canal between Bohio and Gatun. The results of this examination did not justify changing the location of the canal by the adoption of this cut-off. While the length of the canal would be shortened, it is doubtful whether the advantage obtained thereby would be sufficient to justify the increased cost of construction, owing to an increase in rock and other excavation and the fact that for a portion of the distance the canal would have to be carried across a swamp between two embankments.

At Bohio, investigations were carried on to determine the practicability and cost of construction of a high dam in that vicinity. Numerous sites were examined in this vicinity, and the examinations under Mr. H. F. Dose were conducted with extraordinary care and patience; a diamond drill was used and sufficient penetration into the underlying strata made to determine definitely the character of the subformation.

Information was obtained to determine the fact that there was little probability of finding a satisfactory location for a high dam in this vicinity, as the rock gorge in this locality is from 163 to 168 feet in depth and is filled with an alluvial deposit consisting of clay, gravel, sand, and driftwood, the material down to 150 feet at least being very porous and freely water bearing.

Of the principal lines investigated, that known as Line C, proved the more practicable and economical. The practicability of using

this site for a high dam and the cost thereof depend, however, upon the development of a plan to secure the construction of a curtain wall to the bed rock, which will entirely cut off any possibility of the flow of water through the alluvial formation filling the gorge.

An additional line further up the Chagres Valley, at a point called Buena Vista, was also investigated, but the borings showed the bed rock at a depth at least 130 feet below sea level, and probably at a much greater depth.

The same examinations were made at the proposed location of a dam at Gamboa, where the bed rock was found at sea level, and contour lines were run out to determine the area of the proposed Gamboa reservoir. Surveys were made for tunnel lines connecting this reservoir with both the drainage upon the Atlantic and Pacific slopes and a survey made of a proposed location for an open-cut spillway into the Atlantic drainage as an alternative of the tunnel proposition.

The data obtained clearly demonstrated the fact that the construction of a dam at Gamboa will satisfactorily and economically solve the problem of the control of the Chagres River.

Surveys were also made of all the country adjacent to the canal in the vicinity of Colon, Bas Obispo, Bohio, Culebra, and to a greater or less extent along the whole length of the canal, including, of course, all the technical work necessary to the location of the center line of the canal as established by the French and the running of various lines to determine whether this alignment could be improved upon, one of these lines extending from Bas Obispo to Pedro Miguel through the Culebra section.

A large amount of cross-section work was done and estimates made for various plans of canal at different elevations.

At Cristobal, Bas Matachin, Empire, and Culebra, the shops formerly used by the French Company were restored and put in operation, and the shops at Bas Matachin and Empire enlarged. Plans were also made for the enlargement of the shops at Cristobal, and for the construction of additional shops at Pedro Miguel. The old French machinery was overhauled and supplemented by new, and a large number of the French engines and cars put in serviceable condition.

Three hundred and fifty-seven buildings were completely overhauled and repaired, and 48 new buildings constructed, including two large hotels, one at Culebra and one at Corozal. Plans were also completed for four additional hotels and the details of their construction decided upon. Approximately 1,600 men were employed in the building department on June 30, 1905, but this work was seriously delayed on account of the lack of material, although the chief engineer made urgent and repeated requests for its shipment from the United States.

Waterworks were constructed for the city of Panama and in use over a portion of the city, and a sewerage system was in process of completion. The system for Colon had been started, and minor systems established at Culebra, Empire, Gorgona, and other points along the line of the canal.

At Culebra a large amount of preparatory work was done, and every effort made to determine the efficiency of the men and machines engaged in the work, and to obtain reliable units as to capacity, time, and cost, upon which to base future estimates for the completion of



the work on the Culebra division. Care was taken to experiment sufficiently with the different classes of material and the different machinery available to determine these elements of time and cost.

The operations up to December 31, 1904, were practically conducted with the force and machinery formerly used by the French, it being desirable to know, for comparative purposes later on, what could be done with the French machinery and with the character of labor available.

Considerable work was done on the old French railroad track through Culebra Cut, and 15 miles of additional track had been laid anew or cut out of the jungle as left by the French and rebuilt. A number of old French excavators were repaired and worked long enough to determine their efficiency. Ten new steam shovels were installed, and on the 30th of June, 1905, nine of them were working and the other one was ready to work.

These shovels were put to work with a view to testing their efficiency in all classes of material to be handled in the cut, and careful records were kept of all the items entering into the cost of removal of the different classes of material. Owing to lack of labor, and especially of material, requisitions for which in some instances were not filled for six months or longer, and in other cases not at all, a large amount of necessary preliminary work on the tracks was delayed, seriously interfering with the proper conduct of the work.

The total amount of material excavated in July, 1904, was 31,599 cubic yards, which gradually increased each month until a maximum output of 132,840 cubic yards was reached in the month of March, 1905, after which the output, owing to the application of the eight-hour law and the rainy season, decreased to 76,905 cubic yards during the month of June, 1905. The total amount of excavated material for the full year, July 1, 1904, to June 30, 1905, was 741,644 cubic yards, this material including hard rock, soft rock, and earth, at an average cost of approximately 58 cents per cubic yard, the minimum cost per cubic yard for the month of March, above referred to, being 43 cents. The diminished output for June was primarily due to the heavy rainfall in May, which amounted to 13.1 inches, the rainfall for the entire year being 75 inches.

When the chief engineer arrived on the Isthmus the latter part of June, 1904, there were approximately 700 men engaged upon the work. During the year the organization was perfected and a good competent force actively employed on the work, consisting of 1,621 men paid on a gold basis, and 7,227 men paid on a silver basis, a total of 8,848 men.

Extensive orders were placed for steam shovels, cars, locomotives, unloaders, bank spreaders, pneumatic drills, and other necessary plant, including new equipment for the Panama Railroad.

Mr. WALLACE. There are one or two points that I would like to touch on in connection with my testimony this morning, and one of them is this: That there was no time during the year that I was on the Isthmus when there were any employees that were not properly housed or fed, except as I will explain hereafter. As far as the housing was concerned, they were all taken care of, although we could not give the different grades of men the high-class grades of quarters

to which they all thought they were entitled. In that connection I would like to make this remark, that in my entire experience, extending over almost thirty-five years of railroad and construction work, I never saw men any better housed or any better fed than they have been on the Isthmus.

In fact, the majority of the complaints that came to me when I was down there were from the clerical class that came from cities like New York and Washington, and had obtained their idea of the Isthmus from Floradora and some of those plays that they had seen, and they expected to swing in a hammock and sip mint juleps and smoke cigarettes and be fanned, and all that sort of thing. There was no man down there that came there to do real work—that is, among the mechanics or among the civil engineers—that made any complaint of the way they were fed or the way they were housed.

The CHAIRMAN. That applies to the whites as well as to the blacks?

Mr. WALLACE. That applied to the whites as well as to the blacks. This was true about feeding the blacks. We would ship in, say, 100 negroes from the Barbados; those men would come here and have their fare paid, and they would not have money enough to get their next meals. Under the disbursement regulations we could not advance those men any money, and they would have to beg or borrow. Finally we made an arrangement by which the commissary department stretched a point and fed those newcomers in a cheap, simple way until the first pay period after they arrived on the Isthmus. Then, after they got money, they could take care of themselves.

One thing that struck me very curiously the other day was some testimony about the price of eggs. The most expensive I ever saw eggs on the Isthmus—I mean the highest price I ever paid for them in my own housekeeping establishment—was 10 cents in silver, which is equivalent to 5 cents in gold, which made the eggs 60 cents a dozen.

The CHAIRMAN. Five cents apiece?

Mr. WALLACE. Yes, sir. That was for extremely fresh eggs; in fact so fresh that one morning my wife was told by our butler, who was a Frenchman, that she would have to wait a little while for her eggs. She wanted to know why, and he said: "The hen has not yet laid them." [Laughter.]

The price of living there during the year I was there—I do not know what it is now—while it was greater than it was before the Americans went to the Isthmus, was not out of line with the prices in the United States. I mean this simply to disabuse the minds of this committee and the public, in case this information goes out, that there is anything unusual or anything abnormal about the care or treatment of the men there.

Another point I want to touch on—

Senator SIMMONS. Before you leave that, Mr. Wallace: You brought these men over from the islands at the expense of the Government?

Mr. WALLACE. Yes, sir.

Senator SIMMONS. You have said this morning that some of them work only one day in a week.

Mr. WALLACE. Yes, sir.

Senator SIMMONS. Is it not true that some of them, after they were brought over there by the Government, would not work at all?

Mr. WALLACE. Yes, sir.

Senator SIMMONS. And the Government had to lose in that case?

Mr. WALLACE. Yes.

Senator SIMMONS. The Government had to lose the expense of transporting them over there?

Mr. WALLACE. Yes, sir.

Senator SIMMONS. Was that only in rare instances that they would come and refuse to work at all, or was it a common thing?

Mr. WALLACE. It was a common thing.

Senator SIMMONS. About what percentage would you say?

Mr. WALLACE. Every man brought to the Isthmus helps the situation, whether he works for the United States Government or not.

Senator SIMMONS. Sufficiently to reimburse the Government for the expense it has been put to?

Mr. WALLACE. Yes; because he has to work to make a living in some capacity. If he worked on the docks for the other steamship lines it helped the whole labor situation there.

Senator SIMMONS. So that really there was no loss to the Government?

Mr. WALLACE. No, sir.

I would like to come back to that subject again, because there are several points in connection with that very thing that I would like to explain to the committee, but I would like to continue with a few notes that I have here first.

One of the criticisms to which I have been subjected since I left there was for not taking care of the men. That is why I was explaining this feature.

Another point that I want to raise is this: I do not know what has been done since, but quite a lot was said last summer about having some method of entertainment of the men connected with one of these labor organizations, to take hold of the question of public amusement, and things like that there. Now, I am not particularly a saint or anything of that kind, but in my railroad experience, and through the railroad work in the West, we have been in the habit of utilizing the organization of the Young Men's Christian Association, not from any religious standpoint at all, but simply because they had the machinery for it.

During the time I was there I used my utmost endeavors to try and arrange so that we could provide for that machinery to take some care of the young men; that is, almost all the Americans that we had down there, at least the larger part of them were men who were either acquainted with that organization or had been members of it in this country, and were men to whom that sort of thing would appeal. The association itself was heartily in favor of it. But after the thing was all worked up and all the details worked out (General Davis and Minister Barrett and myself were the committee at one time to look into it) it was stopped and we were not able to go ahead with it. Where the influence came from to stop that is a matter that I am not positive about, but from some official source the intimation was made to me that it was not desired that we should go ahead with that matter at all, and the carrying out of that plan came to a standstill.

Senator KITTREDGE. When was that?

Mr. WALLACE. That was in this last spring, after I went on to the executive committee—this last spring, 1905, just a few weeks before

I left there. At that time we had even plans made for the construction of these buildings.

Senator HOPKINS. You say an intimation came to you "from some official source;" what do you mean by that?

Mr. WALLACE. I mean to say that after I got on the executive committee it was intimated to me that it was not the desire of the authorities that we should encourage or go ahead with that, and the plans along that line were stopped.

Senator KNOX. Who intimated that to you?

Mr. WALLACE. The intimation came to me, I think, from Governor Magoon. He intimated that the Secretary did not care to have us go ahead with it, and that we had better drop it.

Senator KNOX. Is that what he said?

Mr. WALLACE. That is what he said, as I recollect it.

Senator HOPKINS. You say the Secretary; you mean the Secretary of War?

Mr. WALLACE. Yes, sir.

Senator KNOX. Governor Magoon said that the Secretary did not want it?

Mr. WALLACE. Yes, sir. It came up informally. We were in the committee room, the governor and myself, and I said: "I presume that there is no objection to our going ahead with this Young Men's Christian Association."

Senator KNOX. Yes.

Mr. WALLACE. And he just said, informally: "We will have to drop that. The Secretary does not want us to do anything with it."

Senator HOPKINS. Did he give any reason why?

Mr. WALLACE. Not particularly; no. I think I understood what was the reason for it; but that was a mere supposition.

Senator KNOX. What did you suppose the reason was?

Mr. WALLACE. That was a Catholic community there, and I think it was objectionable to them; but a large majority of our white men were Protestants.

Senator HOPKINS. The majority of the laborers there were Catholics, were they?

Mr. WALLACE. The colored people on the Isthmus were. The negroes that we brought over from Jamaica were Episcopalians and Protestants. The greater number of our white men were Protestants. Some of our white men, of course, were Catholics. The native people in Panama, that is, the governing class there, the Spaniards and the Spanish Indians, and the mixed bloods that were residents on the Isthmus, were Catholics. There is only one Protestant church in Panama, as I recollect, and that is a Church of England church.

Senator HOPKINS. The idea was, as you gathered it from Governor Magoon, that it would not be agreeable to the governing forces there in Panama?

Mr. WALLACE. Yes. I do not say that to criticise him, because it might have been the very best and wisest policy, you understand, but I simply give it out in answer to the broadcast criticism of my action by Mr. Shonts that I did not care to provide anything for the amusement of these men. I did not want to let this hearing pass without answering that.

Senator HOPKINS. I want to say that Mr. Shonts has been before this committee, and he was very careful not to criticise you.

Mr. WALLACE. Well, this was in the newspapers.

Senator HOPKINS. If I can read a man's evidence correctly, he was extremely careful not to say anything in criticism of you.

Mr. WALLACE. I know he was, and I appreciate that very much; but what I am making this statement for is in reply to what went out all over this country earlier in the season—last summer—after I left the Isthmus. I was criticised in that way through the press. It was not anything that was said before this committee, because I have not been able to find anything in the testimony of Mr. Shonts so far, though I have not read it all, that was not fair toward me, except his testimony before the Appropriations Committee where the Secretary and he both said that I had wasted dirt improperly; that is, put dirt where it would have to be moved again, and he gave Mr. Stevens as authority. In his testimony before this committee Mr. Stevens said that that was not true and that it was a slur upon Mr. Wallace. I felt that matter very keenly for this reason: The Secretary and Mr. Shonts had in their possession the means of obtaining, through official sources of information, the absolute truth. Now, I think that was hardly fair—and I beg your pardon if I show some heat—but I do not think it was fair—

Senator HOPKINS. I am only speaking for one member of the committee, but Mr. Shonts has been here and if you are as careful of his reputation as he was of yours there will be no trouble between you at all.

Mr. WALLACE. I am going to try to be, but nothing can repair the damage that has been done to my reputation through the press, from all sorts of sources that I could not answer. This is my only opportunity to reply. I have never said a word in criticism of anybody or in defense of myself until you gentlemen called me before this committee, and I did not ask for a hearing. And if I use the opportunity to try to make myself straight and if I do it improperly I hope you will call me down, because I do not want to do anything that is out of the way or improper in any way; but I do want to set myself straight in this matter.

Senator HOPKINS. So far as I am concerned I am only speaking for one member of the committee.

Mr. WALLACE. Yes.

Senator HOPKINS. I think you should have a full opportunity to explain every fact connected with your administration there.

Mr. WALLACE. Yes, sir.

Senator HOPKINS. But I think that to build yourself up it is not necessary to criticise Mr. Shonts or anybody else.

Mr. WALLACE. I do not desire to criticise him.

Senator SIMMONS. But if, in making statements of those facts, they necessarily involve criticism of Mr. Shonts, or Mr. Magoon, or anybody else—

Senator HOPKINS. He can take his own course as to that. So far as I am concerned, I should like very much to see no feeling grow up between any of the witnesses before this committee. I wanted to call Mr. Wallace's attention to the fact that when Mr. Shonts was here I think he was exceedingly careful to say nothing that would grate harshly upon his feelings or upon the feelings of any of his friends.

Senator SIMMONS. What I meant to say is that I think we ought not by anything we say to throw out an intimation that anything

should be withheld here because it might be in the nature of a criticism of Mr. Shonts or anybody else.

Senator HOPKINS. My remark is not to that point at all. I have said that the fullest investigation should be had, but that in its development I do not think it is profitable to the committee, or the parties either, for them to indulge in criticism.

Senator SIMMONS. The purpose should be to find no more fault with anybody than is necessary to an elucidation of the actual conditions down there.

Senator TALIAFERRO. I think Mr. Wallace should be free to state the facts of this case just as they occur to him and as he feels they should be stated. We want to get at the facts.

Senator HOPKINS. That is what I was directing his attention to—the development of the facts, and not what somebody else has said, or what the newspapers have said.

Senator TALIAFERRO. I thought both Mr. Shonts and Mr. Stevens were exceedingly careful not to lug any personalities into the matter.

Mr. WALLACE. Mr. Stevens was, certainly, and I think both were. Mr. Stevens was particularly so. I am very grateful to Mr. Stevens for straightening that particular matter out. I have no personal feeling in the matter, except this, that one hates to see his efficiency questioned in a way that he can not answer at all. That is all. I do not want to show any feeling, but I want to set myself straight in this matter.

Senator HOPKINS. The best way to do it is by a plain rehearsal of the facts. They will speak for themselves.

Senator KNOX. You have said, Mr. Wallace, that Mr. Shonts made this statement and alleged that it was upon the authority of Mr. Stevens. If Mr. Stevens has come before this committee and stated that Mr. Shonts is mistaken, does not that clear that matter up?

Mr. WALLACE. Certainly it does.

Senator KNOX. Then suppose you go on to the next subject.

Mr. WALLACE. I do not care to discuss it further. I was just calling the attention of the committee to it. I thought that they might have overlooked it.

Senator HOPKINS. I think the committee has given very particular attention to the evidence.

Senator SIMMONS. You have been discussing your supposed indifference as to the establishment of these Young Men's Christian Associations, and have said that you were the subject of criticism, but that your attitude was misunderstood.

Mr. WALLACE. Yes, sir.

Senator SIMMONS. Was not the criticism of you rather to the effect that you were opposed not to the establishment of Christian Associations out there, but to certain institutions for the amusement and entertainment of the employees?

Mr. WALLACE. Yes. In what we were trying to do through the Young Men's Christian Association, it was not the religious or moral aspect of the subject that struck us at all, but it was the fact that through that source we could provide the young men with places to play billiards and cards and practically provide a clubhouse for them. As I explained before, the only desire was to avail ourselves of that organization because it had the machinery to provide those things

Senator SIMMONS. I do not care particularly about the criticism, one way or the other, but I wanted to ask your opinion as to the wisdom of the Government's expending money to establish not Christian associations, but houses where the employees can go for the purpose of recreation and amusement after the day's work is over.

Mr. WALLACE. I think it would be perfectly proper. I think the Government would be well paid for providing the ground and the buildings, and letting either these other associations or the young men themselves make clubs to operate these places. That situation down there is peculiar, and there is nothing that brings disease to our young men more quickly or gets them into bad habits more quickly than for them not to be provided with some rational form of amusement.

Senator SIMMONS. I think I saw a statement in some paper that you ridiculed the idea of providing amusement for men who had to work eight hours a day in a tropical climate.

Mr. WALLACE. No, sir; I never did.

Senator SIMMONS. I think I saw that statement.

Mr. WALLACE. I have not given an interview to the press in eight months. I have not had any communication whatever with the reporters, except when they have come to me I have kindly asked them to refrain from interviewing me. I have been very particular about that, because I did not want to be misjudged or misquoted.

Senator SIMMONS. As a matter of fact, then, you do not disapprove of the Government's spending money for that purpose?

Mr. WALLACE. I thoroughly approve of their doing it. It is just exactly that point that I wanted to bring out here, because I thought the contrary opinion had been disseminated in the public mind.

Senator SIMMONS. I will not say whether that statement that I saw was that you ridiculed the idea or that Mr. Stevens did; but I have seen the statement that either one or the other of you ridiculed the idea of providing, at heavy expense, recreation for men who had been hard at work under a tropical sun for eight hours a day, and that it was stated that they would want to sleep, instead of indulging in amusements.

The CHAIRMAN. Proceed, Mr. Wallace.

Senator MORGAN. This question of furnishing amusements related to those that you call the gold men, did it not?

Mr. WALLACE. Yes, sir.

Senator MORGAN. You did not provide any amusements, or contemplate providing any, for the silver men?

Mr. WALLACE. No, sir. These silver men are most all colored, and they flock by themselves, and have their own methods of recreation.

Senator MORGAN. The others have their own methods of recreation also, have they not?

Mr. WALLACE. Yes, they have; but demoralization among the white or gold classes, which are the classes that make up the foremen and the superintendents and the supervisors of the work, is much more disastrous than it would be among the colored laborers.

Senator MORGAN. Has there been any difficulty in getting the class of men that we call gold men for clerkships and superintendencies and overseerships, and things like that in connection with the canal work?

Mr. WALLACE. I do not know how it is now, but in my time I had a

great deal of trouble in getting competent men, and a great deal of trouble in keeping incompetent men away.

Senator MORGAN. But to get good men?

Mr. WALLACE. To get men that were thoroughly competent and who were expert in their particular line was a very difficult matter.

Senator MORGAN. Yes. Well, the enticements of amusements would not contribute toward getting men who were particularly skilled in a certain class of work?

Mr. WALLACE. It would make them more contented and tend to keep them there. You see, the first year or the first six months I was on the Isthmus I think about 35 or 40 per cent of the men who came down there returned, and the object of having some kind of entertainment, or something of that sort, was to make the men contented. There were very few of them who were able to bring their wives or families with them, and it is hard for any one to realize the mental condition that those young men would get into when they are off so far away from home.

Senator MORGAN. You have conducted some very large undertakings, I think, in regard to constructing railways?

Mr. WALLACE. Yes, sir.

Senator MORGAN. Out on the far frontiers of our country and in the mountains?

Mr. WALLACE. Yes, sir.

Senator MORGAN. Did you have to provide amusements for your engineers and other employees out there to induce them to stay on the work?

Mr. WALLACE. No, sir.

Senator MORGAN. It is the situation, then, that causes that necessity on the Isthmus?

Mr. WALLACE. Yes, sir; it is the situation.

Senator SIMMONS. I want to ask you what you meant a little while ago when you said that you had a great deal of trouble in keeping incompetent men away.

Mr. WALLACE. Well, the class of men that sought positions there was the class that could not find anything to do here. The class of men that we wanted there was the class of men that was already employed here.

Senator SIMMONS. Do you have reference to men that went down there after having stood the civil-service examination?

Mr. WALLACE. Yes, sir; I do, most emphatically. What I am about to say may not be strictly accurate. It is simply my recollection of the circumstance, as I did not keep any record of it. It came up in the course of business. I asked for 25 track foremen, in order that I might lay the necessary tracks in the dry season to enable the work to be done during this last wet season. When those men came on the Isthmus out of the whole 25 I do not think there were two of them that could drive a railroad spike.

Senator SIMMONS. Those were men sent down by the Civil Service Commission?

Mr. WALLACE. Yes, sir.

Senator MORGAN. On civil-service examinations?

Mr. WALLACE. On civil-service examinations; yes, sir.

Another trouble we had was this: We had several grades of engine-



men, for instance, that we paid different rates of salary, depending upon their efficiency. We were trying to promote the men who were entitled to promotion, and to sift out those who were not so competent. Some young fellow would come before the civil-service examination board who was a glib talker, and could write a good hand, and so on, and he would come down there with the highest grade of pay.

And some man of experience, with knots on his hands so that he could not write his name, but who knew every part of an engine and probably had had more than ten times the experience of this young fellow, would not pass as good an examination, and he would come down there at the lower rate of wages. Of course, we had all those things to straighten out after we got them there.

Now that you have gotten me on that subject, I should like to express myself in regard to it.

The CHAIRMAN. We would like to have you express yourself on that.

Mr. WALLACE. I do not think that the civil-service regulations can practically be applied to that work, except to the strictly clerical force—stenographers and men of that class.

Senator SIMMONS. Clerks?

Mr. WALLACE. Yes; as far as the workmen are concerned, the civil engineers and the mechanics and the experts, those are men that should be selected by the men under whom they serve, and must necessarily be selected with a view of their efficiency and for the particular work for which they are employed.

There is one thing, though, that I want to say for the Civil Service Commission, and that is that they did everything in their power while I was connected with that work to help the work along. It was not the fault of the disposition upon the part of the Commissioners; it was the fault of the system that, while possibly well adapted to ordinary departmental clerical work, was not adapted to furnishing expert labor for a constructive enterprise.

Senator SIMMONS. Are you operating down there, or were they when you left, operating under the Civil Service? I mean, did the Civil Service extend to those places which you say you can not fill in that way?

Mr. WALLACE. Yes, sir; it extended to practically everything except the laborers. Of course, they did this: They were very obliging about it in letting us have men that we could select ourselves. I mean, if we wanted a particular man why we could, as the boys say, talk them out of it.

Senator HOPKINS. If that particular man had passed the examination, however, you mean?

Mr. WALLACE. Well, I do not know how they arranged that part of it. I never looked too deeply into the details. If I got the man I wanted I was satisfied.

Senator MORGAN. Where were these civil-service examinations held?

Mr. WALLACE. They were held in this country.

Senator SIMMONS. How did you get rid of one of these incompetent men when the Civil Service Commission sent him there?

Mr. WALLACE. They were gradually weeded out and discharged.

The men have a way of eliminating themselves, as a rule, if they are very undesirable; that is, the men above them and around them make it so disagreeable for them that they are very glad to go back to the States when they can get an opportunity to do so, and they are eliminated in that way. But a large part of them, of course, stick, and then they interfere with the work unless they are discharged.

The man that caused us the most annoyance was not the man that was so incompetent that we were justified in discharging him, but it was the man that we kept because he was better than nothing, and we had to have somebody; and the result was that we were gradually getting the ranks of our subforemen filled with inefficients that were not quite bad enough to "fire," and were not really good enough to justify their continuing in their places, but we could not get anything better, and so they were retained.

The CHAIRMAN. Were you able to discharge these men without making any charges against them? You simply discharged them, did you?

Mr. WALLACE. We did discharge them. That matter never came to an issue.

Senator MORGAN. Who invited the establishment of the civil service in regard to the employees of the Commission? Was it done by any Commission?

Mr. WALLACE. I presume it was done through the Civil Service Commission desiring to have their jurisdiction extended over it; I don't know.

Senator MORGAN. No; I am speaking about the Panama Canal Commission; did they ask for it?

Mr. WALLACE. No, sir.

Senator MORGAN. They never have asked for it?

Mr. WALLACE. No, sir; that is my understanding.

Senator MORGAN. Yes. As far as you know, have they always opposed it?

Mr. WALLACE. As far as I know they have always opposed it.

Senator SIMMONS. Have not the Canal Commission and the Civil Service Commission entered into some arrangement now by which both are represented upon these examining boards, and has not that, to some extent, removed this difficulty that you speak of?

Mr. WALLACE. When they first established the civil-service system of examinations on the Isthmus by the first order it was absolutely impracticable; it could not be worked at all; and of course I remonstrated. Then Mr. Green, one of the Commissioners, came down to the Isthmus with one of his inspectors—I have forgotten the other gentleman's name—and we went over the whole matter there.

He stayed there with me about a week and went out on the works and looked at the men working, and I showed him what the men were doing and explained the whole situation. Then he came back and he undertook to get up a set of modified regulations to apply to that work. From their attitude toward it I thought they were going to make these modified regulations very practicable. They provided for a system of civil-service examinations on the Isthmus through a board, in the appointment of which I was largely consulted; but we never, while I was there, were able to make that operative.

Senator SIMMONS. That was because most of the examinations took place in this country, was it not?

Mr. WALLACE. Yes; that was for people that drifted in there. There were Americans coming there of their own accord, or people drifting in there that were desirable employees from other surrounding countries.

Senator MORGAN. Did these civil-service regulations apply to persons of all nationalities, or only to Americans?

Mr. WALLACE. The first order that came down there was so worded that we could not employ anybody on the canal except an American citizen, or someone that would swear allegiance to the United States Government, except the common black laborers. That was impracticable, because we had Spaniards and Frenchmen and Germans and Englishmen, and men of all nationalities coming in there, and they had the ability to do the work that we wanted done; and we hired them, regardless of politics, religion, color, or previous condition of servitude or anything else, the men were so scarce.

Senator HOPKINS. You have touched lightly on the question of feeding these men during the time you were there. Have you said all you wanted to on that subject?

Mr. WALLACE. No; I have not, entirely. Outside of this difficulty that I spoke of about taking care of these men that did not have any money, we did not have very much difficulty while I was there, but I saw that it was going to be a growing problem a little later on. We had this trouble: Under the Government regulations we could not deduct a man's board from his pay roll, and if we got a man to keep a boarding house, and he boarded our employees, he had to run the risk of collecting their board, you understand, from the men. If they suddenly took a notion to go home, and left the Isthmus, and left that board uncollected, the keeper of the boarding house would lose that money, and there was no means by which we could collect that money; and it made it very difficult to get reliable men to run these boarding houses and these hotels.

We had some trouble with the labor in this way: If we had provided for roast beef and potatoes and everything like that for these negroes, they would not have boarded at the boarding houses that we provided. These men are very peculiar. Each man wants to go out and get a yam, or a sweet potato, or something like that, and he wants to go and cook it himself, or have it cooked for him. No matter what kind of food you give them, they always express dissatisfaction with it, although it may be four or five times better than they have been accustomed to or than they are able to furnish themselves. We were never able satisfactorily to board the negroes.

We tried that, in an experimental way, in the Panama Railroad organization, in attempting to board Fortune Island negroes (which are the same as Jamaicans) that we brought in there to handle our freight on our wharves; and it was just one constant jangle right along between the negroes and their boarding-house keepers, and they were continually expressing dissatisfaction. What we finally determined to do was to provide a place where these men could get a soup, with all the vegetables that they wanted, at a moderate sum per meal, and then let them take it or leave it alone as they saw fit. And Mr. Settoon, one of our foremen, who had much to do with that class of labor, recommended that we provide kitchens in which we would cook their food for them and let them bring it to us. But while we

apprehended that that would give us a great deal of trouble in the future, it had not reached a really acute stage before I left there.

There is one thing that I would like to say in connection with what I said this morning about these costs. I did not want to imply that it was anyone's fault on the Isthmus now, that those costs ran up after the 1st of July. They commenced to climb in May and June, due to a combination of causes that had not existed before. The principal cause was, of course, the eight-hour day. The next was the fact that everything came down there in an unbalanced way. For instance, we would want so many steam shovels, so much tracking, so many engines, so many cars, and so many steam-shovel men, and so many firemen, and all that sort of thing, and we might get a whole lot of one class of men and none of the other to go with them.

The result was that along about May and June the forces commenced to get unbalanced, due to all of the things not coming that we had asked for; and the result was that we had to carry quite a large percentage of what you might call reserve force—that is, we had no profitable work for the men to do. Still, we did not want to turn them loose and send them back to the United States, because the next month the conditions might be turned around and we would have too many of some other kind. That naturally went with that work. Then the main feature, and the feature that I judge has given Mr. Stevens the most trouble, was this:

We were never able in the dry season, when we should have done it, to locate our tracks properly for the conduct of the work during the wet season, because we did not get the track material and the labor in spite of the utmost endeavor to get that material. The result was that the only tracks we had to do business on were the old French tracks and the old French track material, which we tried to restore, and now and then we would connect up a new piece of track. We dug out and repaired, I should judge, about thirty-five miles of tracks. That was one reason why Mr. Stevens, not having had any conversation with me before he went down there, and not being able to avail himself of any of my ideas about the work, thought there was not any system in view, because we had to do what we could with those tracks that were already there.

While it was all in line with a certain definite plan, why the work was not going on as systematically as it would have gone on if we had been able to shape it up in the proper season of the year. Those bad tracks and those engines of course caused derailments, and it was those derailments and the retardation of the work that made the extraordinarily high prices that have developed since. I do not think it has been due to any questions of management so much as it has been to these conditions that were occurring months before.

Senator MORGAN. You are referring to the high prices of labor?

Mr. WALLACE. I mean the high cost per cubic yard in July and August and September of this year.

Senator MORGAN. At the time that you left the Isthmus, had there been any great rise in the price of provisions there?

Mr. WALLACE. There had been a gradual rise; yes; but the kinds of provisions the native use, of course, were very cheap—fruits and vegetables and fish, and things of that kind—before the American control commenced.

Senator MORGAN. Concerning abundance—was there an abundance of them up to the time you left the Isthmus?

Mr. WALLACE. There was not an abundance; but then, while there was an increase in the price, there was no difficulty in procuring anything that was needed.

Senator MORGAN. Was that true of the laboring classes, that they could get all they wanted at any time?

Mr. WALLACE. It was, up to that time; yes.

Senator MORGAN. You do not know how it has been since?

Mr. WALLACE. No; of course their pay was advanced in proportion to the advance in provisions, and I think a little more than in proportion to the advance in provisions.

Senator MORGAN. You kept an eye on that, and kept them supplied with additional pay so that they might meet the rise in the food markets?

Mr. WALLACE. Yes, sir.

Senator MORGAN. From whom did they obtain their provisions before you left there; from the Government or from merchants?

Mr. WALLACE. From merchants scattered along the line.

Senator MORGAN. Had any commissary supplies been issued to them or sold to them before you left there?

Mr. WALLACE. There was a commissary on the Isthmus originally in charge of the Panama Railroad, that provided the employees of the Panama Railroad with their provisions; and that was passed backward and forward several times between the Commission and the Panama Railroad. It was first taken out of the hands of the Panama Railroad and put in the hands of the Commission, and then it was found that the entire receipts for the sale of these goods would have to be turned in to the United States Treasury, and all that was bought by it would have to come out of the canal appropriation; and when that occurred it was turned back to the Panama Railroad again in order to avoid that piling up of accounts and fictitiously increasing the cost of the canal work which would result from that course.

Senator KNOX. I would like to ask you a question about that food supply. You say the food supply for the common labor is principally vegetables and fruit?

Mr. WALLACE. Yes, sir.

Senator KNOX. Are those vegetables and is that fruit raised on the Isthmus, or is it brought there?

Mr. WALLACE. It is mostly raised there.

Senator KNOX. Are the arable lands there that can be cultivated for that purpose extensive or limited?

Mr. WALLACE. They are extensive, and the soil is very rich—very fertile.

Senator KNOX. So that the demand for that kind of food, which you say is the food that the majority of the working people use—that is, the people engaged in the actual digging of the canal—can be cultivated to any extent?

Mr. WALLACE. Yes, sir.

Senator KNOX. These fruits and vegetables could be raised to any extent?

Mr. WALLACE. Yes. The only trouble about it is that the Panamans, the natives of the Isthmus themselves, would not go to the

trouble to dig a hole in the ground to put a seed in it. They will not raise anything that they can not go and pick off a shrub or bush that grows wild.

Senator KNOX. Still, do you not think that a permanent, constantly increasing demand will bring people in there who will raise the food necessary?

Mr. WALLACE. Yes, sir. The Chinese are the main source of vegetable supplies there. They cultivate gardens, and I know of one Chinese that we bought from that made a good living off of land that he paid a rental of \$300 a year per acre for, because he had such a rotation of crops. Things grow all the year round there.

The CHAIRMAN. What part of the line was that located on—where was that?

Mr. WALLACE. That was right in Panama.

The CHAIRMAN. Right at Panama?

Mr. WALLACE. Yes, sir.

The CHAIRMAN. Have you any knowledge as to what they do either side of the line—say, 5 or 10 miles away—whether there is any cultivation going on there?

Mr. WALLACE. There is some cultivation, but it is very small.

The CHAIRMAN. There is nothing apparent from the line of the road?

Mr. WALLACE. No. The reason for that originally was the fact that the policy of the Panama Railroad absolutely choked any local development. The local freight rates were so high that no one could ship anything, not even into Panama. It was not profitable for them to raise anything that they could not actually consume themselves, except bananas. The Panama Railroad did encourage to some extent the cultivation of bananas for shipment.

The CHAIRMAN. Whatever is done in that direction is along the coast, and not in the interior?

Mr. WALLACE. It is done along the streams; that is, up the Chagres Valley, and up the tributaries to the Chagres.

Senator KNOX. How is the surface generally, taking this picture over here on the wall as indicating the general topography of that country? Are those hills covered with vegetation, and is the soil rich enough to raise satisfactory crops?

Mr. WALLACE. Yes; but that is not a true representation of it. That is simply a fancy sketch.

Senator KNOX. Tell us how it is.

Mr. WALLACE. It is not as broken as that.

Senator HOPKINS. Which sketch are you speaking of now?

Senator KNOX. The lower one, of course; not the map.

Mr. WALLACE. That is what I refer to. That is a fancy sketch—that is, the valleys are wider, the hills are not quite so high as they are shown there; but over that whole country is a reddish clay that is very fertile, and all you have to do is to tickle it to have vegetation grow on it. For instance, if our sanitary men and our whole force were withdrawn from the Isthmus, inside of a year from now I do not presume that you could tell that any vegetation had ever been cut, or that civilized man had ever been there, the vegetation grows so rank and rapidly.

Senator SIMMONS. You mean on these high hills there?

Mr. WALLACE. All over the entire territory.

Senator SIMMONS. They can be cultivated and will produce rank vegetation?

Mr. WALLACE. Yes, sir; of course, the soil in the valleys is better, naturally.

Senator HOPKINS. Did the laborers that you brought from Martinique prefer the food that was raised there or the food that was furnished by the commissary department of the Commission?

Mr. WALLACE. They are very peculiar. Each class of negroes had their own ideas. You take, for instance, 100 Jamaicans, and there would probably be 15 or 20 individual sets of tastes among that hundred; and some of them would spend their money for rum and suck sugar cane for sustenance, when they got it. One great trouble that I saw we were going to have there was to get the men to use that form of food that would enable them to perform physical exertion.

Senator SIMMONS. Mr. Wallace, it was suggested here the other day that if we could get those West Indian negroes to eat the kind of food that our laboring people eat they could do so much more work.

Mr. WALLACE. That is the point I mention now.

Senator SIMMONS. Do you think that is true in a tropical climate? Do you think that they would be able to do more work if they subsisted on a meat and bread diet, such as our laborers eat, than if they subsisted on a vegetable diet, eating fish occasionally as about the only meat they consume?

Mr. WALLACE. My experience with that class of people has been that, as a rule, you can not coerce them very much. They know what food they want, and what they can get the most benefit out of. But I always thought if we could encourage them to eat meat soups, and not to eat quite so much fruit, that they would be in better condition to perform physical labor. But their inefficiency, of course, is largely due to the general climatic influence and the fact that they have never been disciplined at all.

Senator SIMMONS. What do you think would be the effect of eating a meat diet upon the health of those people who labor right under the tropical sun there?

Mr. WALLACE. I do not mean a rich meat diet, but their diet could be changed, I think, to advantage without any disastrous physical consequences or any damage to their health at all.

Senator MORGAN. While you were acting as Commissioner and as chief engineer of this canal work, a period seems to have arrived when it was necessary to open the commissaries that were on the Isthmus to the access of the laborers to obtain food; is that right?

Mr. WALLACE. I do not know that any specific period arrived. Yes; there was a time when we had to take care of these men temporarily until they drew money from the commissary, so that they could go and buy it. During that time we provided them with food.

Senator MORGAN. From what source?

Mr. WALLACE. From our commissary.

Senator MORGAN. Of the Canal Commission or of the railroad?

Mr. WALLACE. Well, as I said before, it fluctuated backward and forward, once or twice.

Senator MORGAN. There were several changes made in order to accomplish that work?

Mr. WALLACE. Yes, sir; but the commissary officers opened several places, where they temporarily furnished soups and vegetables to the workmen.

Senator MORGAN. Out of that situation, which I understand to be caused by a scarcity of food, or difficulty of obtaining it at fair prices in the markets of Panama or Colon or anywhere else, there was a proposition made to establish commissaries to provide all of the canal force with food, either cooked or raw, was there not?

Mr. WALLACE. That was a separate thing. The trouble that I had was not due to the scarcity of food. It was due to the fact that these men were landed on the Isthmus without any money.

Senator MORGAN. Yes.

Mr. WALLACE. They did not have any money at all to buy any food with until they had worked a certain number of weeks, and the pay day had passed.

Senator MORGAN. But you contemplated the establishment of permanent commissaries there as a method of supplying food to the laborers on the canal?

Mr. WALLACE. Yes, sir.

Senator MORGAN. And it was by reason of that that an invitation was extended to Mr. Markel to come down there?

Mr. WALLACE. Yes.

Senator MORGAN. Did you extend that invitation to him?

Mr. WALLACE. I wrote Mr. Markel a letter, along in March, and just stated the general problem there. I do not know whether I invited him to come down or not, but I suggested to him the propriety of his coming down there and looking the situation over.

Senator MORGAN. Have you a copy of that letter?

Mr. WALLACE. I have; yes. It never reached him. It was mis-carried.

Senator MORGAN. He did not get it? --

Mr. WALLACE. He did not get it, but he got a subsequent one.

Senator MORGAN. Of the same tenor?

Mr. WALLACE. Of the same tenor, but he did not reach the Isthmus until after I had left there.

Senator MORGAN. But did you have any personal interview with him about going to the Isthmus?

Mr. WALLACE. None, except this—that after I had left the Isthmus and came up to New York he called on me in my hotel.

Senator MORGAN. In New York?

Mr. WALLACE. In New York. I was only slightly acquainted with him. I suppose I had met him possibly half a dozen times in my life. While he had charge of the commissaries on a branch line of 132 miles from Fort Dodge to Omaha, which I constructed for the Illinois Central Railroad, he was employed by and was under one of my subordinates that had charge of that part of the work, and I did not come in contact with him much. Afterwards, I made another bargain with him to get up an organization to be able to feed a thousand men, our employees. I was apprehending a strike in our freight houses in Chicago, and I had arranged, in case I did not make a settlement with my men—

Senator MORGAN. That is perhaps immaterial. You are now telling what took place in the railroad transactions?

Mr. WALLACE. Yes.



Senator MORGAN. After this conversation you had with Mr. Markel in New York, did you have any further conversation on the subject of his going to the Isthmus and establishing commissaries there?

Mr. WALLACE. At New York he asked me if I thought there was any use of his going down, now that I was leaving the canal. I told him that I did not see why he should not go down there. He told me that he and Judge Magoon had been schoolmates together, and he was acquainted with the Judge, and I told him I did not see any reason why he should not go down there—at least he would have a nice trip—and look the situation over; and then, in case he was called upon to do any of that kind of business, he would have the requisite knowledge.

Senator MORGAN. Was that after you had arrived in New York for the purpose of conferring with Mr. Taft?

Mr. WALLACE. I think that was after I had resigned and my connection with the Commission had ceased.

Senator MORGAN. It was after you had resigned?

Mr. WALLACE. Yes.

Senator MORGAN. He knew what had taken place, did he?

Mr. WALLACE. Yes, sir.

Senator MORGAN. Did you offer him any inducement or make any contract or agreement or promise with him to go to the Isthmus as an expert to look out situations and to give advice as to what should be done down there?

Mr. WALLACE. I made no contract with him. I suggested to him that if he cared to come down and look the situation over, I would be very glad to have him come down; but it was not with a view of employing him to do it, and not with a view of giving him any compensation, unless—what was in my mind was this: We had men running these hotels, you understand; we had let one man have a hotel to run, and run them in competition with everybody else, and there was no monopoly about it at all, except that two men could not have the same hotel. I had understood that he had a son that he was very anxious to have take up this business, and he was expert with it, and I thought perhaps some arrangement might be made with him growing out of this, either in the way of running a single hotel or something of that kind, or making a proposition that might look to a more extensive service.

Senator MORGAN. Was all of this conversation after you had ceased to be a commissioner?

Mr. WALLACE. My secretary has just corrected me; he says it was just the day before I had my interview with Secretary Taft.

Senator MORGAN. The day before?

Mr. WALLACE. The day before; yes.

Senator MORGAN. During one of the days that you were waiting for his arrival from Washington in New York?

Mr. WALLACE. Yes; I waited there Friday and Saturday.

Senator MORGAN. Did you offer him any compensation or any inducement to go down as an expert at the expense of the company?

Mr. WALLACE. None whatever, except this, that I secure for him free transportation over the steamship line from New York to Colon.

Senator MORGAN. Was that free transportation?

Mr. WALLACE. That was free transportation; not board on the

steamship. He would have to pay the \$25 that all our employees paid.

Senator MORGAN. You did not propose to secure for him, and did not secure for him, anything except the mere transportation?

Mr. WALLACE. That was all.

Senator MORGAN. Without reference to board or anything of the kind?

Mr. WALLACE. Yes. The way I understood it, from my conversation with him, he looked on it as a nice, interesting trip to go down there and see how that situation was, and that he mixed the business with it at the same time, and my idea in giving him free transportation was that I thought we would get enough out of his ideas to justify giving free transportation to him, and I think to two gentlemen that were with him, his assistants.

Senator MORGAN. Is that as far as you went in offering inducements to him to go down there for the purpose of inspecting the situation and giving expert advice in regard to the establishment of hotels or eating houses?

Mr. WALLACE. Yes.

Senator MORGAN. Is that as far as you went?

Mr. WALLACE. As far as I went.

Senator MORGAN. I do not wish to ask you anything further.

Senator KITTREDGE. Mr. Wallace, I show you page 389 and subsequent pages of Senate Document No. 127, and ask you to examine them and state if the letters to which you have referred are accurately copied into this document.

Mr. WALLACE. This first letter is the one that I understand he never received. My secretary suggests that he may have received a copy of it later on; but it was addressed by my clerk on the Isthmus there to "Mr. Marquette," and that was the reason it miscarried. It went to Omaha and was not delivered to him. I stated in that letter the general problem down there, and of course I was anxious to get his views on what we could work out of it. That letter is practically the same. I have just glanced over it, but it seems to be correct.

Senator KITTREDGE. You may examine the subsequent letters.

Senator HOPKINS. You wanted to get his views for the benefit of the Commission, did you not?

Mr. WALLACE. Yes; yes (after examining letters referred to by Senator Kittredge). Now, he refers in this second letter to a conversation here. I do not recollect any conversation I had with him before the first of May. I think I met him in Washington when I was up in April or May, or maybe it was the fall before, and at his request took him over and introduced him to the general manager of the Southern Railway, with whom he wanted to make some arrangement; but I do not remember this conversation he refers to here. These letters are correct as I recollect it—that is, those that are signed by me.

Senator KITTREDGE. Yes. Are the letters that are set forth in pages 389 to 393, inclusive—

Mr. WALLACE. Well, now, after you get past page 392 these letters are principally from other people.

Senator KITTREDGE. I see one on page 393, signed "J. J. Wallace," or "John F. Wallace." Are these all the letters that you wrote Mr. Markel during your term as chief engineer?

Mr. WALLACE. Yes, sir.

Senator KITTREDGE. Or as a member of the Commission and chief engineer?

Mr. WALLACE. Yes, sir; that is my recollection, that all the letters that I wrote are in here.

Senator KITTREDGE. There has been filed (that is not in evidence here), with a voucher paying ten or eleven thousand dollars to Mr. Markel, a letter from you justifying such payment. Do you know which letter it is?

Mr. WALLACE. I do not know; I never heard of it before. My recollection is that all the letters I wrote to him are those that are embodied here. In the first place, I was out of the service before he went to the Isthmus at all, and of course I had no knowledge whatever of any of the subsequent transactions, except what I saw in the newspapers.

Senator MORGAN. With whom did he go to the Isthmus?

Mr. WALLACE. He went down there alone. That is, he had men with him, but he did not go with any members of the Commission.

Senator KITTREDGE. What, if anything, had Mr. Markel done prior to his trip to the Isthmus in reference to preparation?

Mr. WALLACE. Nothing that I knew of, except probably to—

Senator KITTREDGE. Or had he a contract of any sort with the Commission?

Mr. WALLACE. He had no contract, no agreement.

Senator KITTREDGE. Or with the railway company?

Mr. WALLACE. Or with the railroad company; nor had he any obligations down there, as far as I know, either implied or assumed.

To explain to you about my asking him to come here, it is a very common practice among railroad men if they want the advice of a man like Mr. Markel to ask him to come and talk the matter over, and to furnish him transportation for that purpose. I did that on the Illinois Central. If he was in Omaha, and I wanted to ask him about preparing these arrangements for handling these men on the strike, I would send for him and send him transportation to come, and have a talk with him. But that did not imply any obligation to employ him, or anything of the kind.

Senator HOPKINS. I know; but, Mr. Wallace, is not that quite a different proposition than it is to ask a man to go from here to Panama and investigate a condition of affairs that are in inchoate condition at the time?

Mr. WALLACE. No; because there was an implication, of course, in the letter, that he would be given an opportunity, if there was any letting, or anything of that kind, and he did like every person else—he took his chances. A great many men came down there to Panama that were interested in all sorts of commercial business. They took their chances; but they wanted to see the situation.

Senator HOPKINS. They did not come on the invitation of the chief engineer, did they?

Mr. WALLACE. Yes; some of them came on the invitation of the chief engineer.

Senator HOPKINS. Who?

Mr. WALLACE. I invited one man down there from whom I do not think we ever bought a dollar's worth of stuff afterwards. He went all the way down there to look that situation over.

Senator HOPKINS. Who?

Mr. WALLACE. That was a Mr. Baldwin, of Chicago.

Senator HOPKINS. What firm is he connected with?

Mr. WALLACE. He is connected with the Leidgerwood people. We afterwards, I think, when we got ready to start our car work, bought some Leidgerwood unloaders from him; but what I wanted him down there for was to get his views about handling excavated material by aerial railways, and he understood that thoroughly.

Senator HOPKINS. You do not mean to say, do you, Mr. Wallace, that Mr. Markel was not entitled to any consideration at the hands of the Government for the time that he spent and the effort that he put forth upon this question?

Mr. WALLACE. No; not finally; but what I do say is this—that there was not anything in this letter of invitation that I wrote to him that would have justified his going down there and looking the situation over and rendering a bill. That is what I mean to say.

Senator HOPKINS. This rather looked to a contract, did it not?

Mr. WALLACE. Yes; it rather looked to some sort of an arrangement—not necessarily a contract, but to our letting him have some of these hotels to run, or something of that sort. Certainly it did.

Senator KNOX. Having invited him to go down and look over the situation with a view of making a contract, which your letter indicates, and having made the contract with him as a result of his visit there and experience and consultation, and then canceling the contract for no fault of his, do you not think that he was entitled to something?

Mr. WALLACE. He was most assuredly entitled to compensation.

Senator KNOX. Do you not think those were the circumstances of this case?

Mr. WALLACE. I do not know anything about it, except what I saw in the newspapers after this. What I mean to say is that he was not entitled to compensation under this correspondence of mine, but—

Senator KNOX. But assuming what I have just stated to you, taking those elements to be correct, you think he was entitled to compensation?

Mr. WALLACE. Yes; assuming that.

Senator HOPKINS. Now, you say, Mr. Wallace (which I understand to be correct), that this letter of yours indicated that he came down there with a view of making some arrangements to take charge of those hotels and boarding houses.

Senator MORGAN. The letter speaks for itself.

Senator HOPKINS. That is what I say.

(At the request of Senator Hopkins, his question was read aloud by the stenographer.)

Mr. WALLACE. I can not answer that right offhand in that way; but what I had in my mind was this: I wanted to get his advice, and I expected him to make some sort of a proposition, you understand; but whether we do that by contract, or whether we would simply let him have one or two of these hotels and let him run it to suit himself, or whether we would make any arrangement at all or not, depended upon the result of his looking the ground over. If we let the work by contract I would expect that all the advantage he would get out of this trip would be his actual knowledge of the conditions, which would enable him to prepare an intelligent bid on it.

Senator HOPKINS. Yes. Now, he did go down in pursuance of that letter, did he not?

Mr. WALLACE. Yes, sir.

Senator HOPKINS. And he did make a contract with the Commission?

Mr. WALLACE. I understand so.

Senator HOPKINS. Which was subsequently canceled?

Mr. WALLACE. I understand he did; yes.

Senator HOPKINS. And under those conditions is there any question in your mind but what he was entitled to compensation?

Mr. WALLACE. He was certainly entitled to compensation; yes.

Senator HOPKINS. And you make no criticism, as I understand it, of the amount that he was given for his expenses and compensation?

Senator MORGAN. Well, I would rather be permitted, as a member of this committee, to judge for myself rather than upon Mr. Wallace's opinion as to whether Mr. Markel was entitled to compensation.

Senator HOPKINS. Well, you can do so.

Mr. WALLACE. My answer may clear that matter up for you. I have no opinion whatsoever on that point, because I am not in possession of the facts that would justify me in giving one; only that as a matter of principle, it seems to me he was certainly entitled to some compensation. How much, would depend altogether on the circumstances.

Senator MORGAN. Mr. Wallace, did you have any bargain with him about going to the Isthmus?

Mr. WALLACE. None whatever, except what is in this correspondence.

Senator MORGAN. Was that a bargain?

Mr. WALLACE. No, sir; it was simply an invitation to go there.

Senator HOPKINS. If we should apply the same principle to you, Senator, that correspondence speaks for itself?

Senator MORGAN. Yes; that speaks for itself. I just assumed that it was not a bargain because it was not. Now, when Mr. Markel came to see you in New York, was it in respect to these letters that he came to see you?

Mr. WALLACE. Yes, sir.

Senator MORGAN. He hunted you up? You did not look for him?

Mr. WALLACE. No; he hunted me up in my hotel.

Senator MORGAN. He was out looking for business?

Mr. WALLACE. Yes, sir. I told him that I was out of it now, or expected to be out of it; that it depended upon the result of my interview with the Secretary, and I could not advise him, only I said to him: "You have your transportation down there, and Magoon and you are old chums, and, so far as I know, there is no reason why you should not go down."

Senator HOPKINS. The causes that existed, that made you write the letter, still continued at the time you had this conversation?

Mr. WALLACE. They certainly did; yes.

Senator KITTREDGE. Will you not state the entire conversation you had with Mr. Markel in New York as you returned from the Isthmus just before he was departing for the Isthmus?

Mr. WALLACE. That is what I have just stated. The substance of it was that he came to see me about going down, and he had seen these newspaper rumors that were floating around that I probably came up to resign, and he wanted to know whether it was worth while for him to go on down or if I was going to quit. I told him that I did not know what would be the result of it; I did not see any reason why he should not go down. I told him that it would make a pleasant trip

for him; he had his transportation, and he told me about his acquaintance with Magoon and that he wanted to see him any way. I do not know when he left; I think he went on the next Monday after my interview with the Secretary.

Senator MORGAN. You did not propose to bind yourself individually for the expenses of his journey down there and his expert information, did you?

Mr. WALLACE. No, sir.

Senator MORGAN. And you had no power to bind the company?

Mr. WALLACE. No, sir. I presume I had power to bind the company; yes.

Senator MORGAN. After you had resigned?

Mr. WALLACE. Not after I had resigned, no; but, I say, originally.

Senator MORGAN. Yes; I am talking about the time that he made up his mind that it was best to go, and had the conversation with you at your hotel. That is all I want to ask you about that matter.

Now, Mr. Wallace, I wish to ask you some questions of an engineering sort. When you got to the Isthmus as chief engineer did you at once enter upon the discharge of your duties?

Mr. WALLACE. Yes, sir.

Senator MORGAN. Were you appointed before you went there?

Mr. WALLACE. Yes, sir.

Senator MORGAN. Did you take any staff with you? Did you take any engineering officers along?

Mr. WALLACE. I took a secretary, a stenographer, a gentleman whom I called an office engineer, and a young man who was just commencing to practice engineering.

Senator MORGAN. Were they all employed?

Mr. WALLACE. Yes, sir.

Senator MORGAN. When you got there you found a force of engineers ready for service?

Mr. WALLACE. Yes, sir.

Senator MORGAN. Ample in numbers?

Mr. WALLACE. There were five different corps. Some of them had ample organizations; some of them had to have additional men.

Senator MORGAN. Did you examine the French maps when you got there?

Mr. WALLACE. Yes, sir.

Senator MORGAN. Did you find them very useful in your explorations of that Isthmus?

Mr. WALLACE. Some of them I found useful, and some of them I found worthless.

Senator MORGAN. Why were they worthless?

Mr. WALLACE. The French were very thorough in their work, and whenever an idea suggested itself they made what they called an elaborate system of studies; and they had quite a large collection of studies of that character that were valuable in a negative sense; that is, they were valuable in saving the necessity of going into certain lines of investigation. A great many of their maps were inaccurate in this way: You see that map yonder [referring to large map in committee room]? They had topographical maps, and if we would go away out in the country, away from the line of the canal—for instance, take that part between Gamboa and Alhajuela—they had some places where these hills were 3 or 4 miles out of the way.

The work near the canal was accurately done, instrumentally. When they got farther out into the country the surveys were made more or less carelessly, or the contour lines, as we call them, were sketched in; and we could not tell what was accurate and what was not accurate until we had actually made instrumental surveys ourselves, in order to check those results.

Senator MORGAN. So that after leaving the line of the canal proper and getting out into the other region of the country, where topographical examinations had been made, you found the maps of no use?

Mr. WALLACE. They were of use for some purposes; but they were more and more inaccurate the farther you went away from the center line of the canal.

Senator MORGAN. If they were inaccurate they were misleading?

Mr. WALLACE. They were misleading; yes.

Senator MORGAN. And had to be corrected by actual surveys?

Mr. WALLACE. And had to be corrected by actual surveys.

Senator HOPKINS. Right there, Senator, that would only be in places where it was necessary to have actual surveying, would it not?

Mr. WALLACE. It depended upon the purposes you wanted to use the map for.

Senator HOPKINS. Yes.

Mr. WALLACE. For instance, all those surveys from Gamboa up to Ahajuela were practically useless in that they did not represent accurately the watershed, and did not give the information accurately enough to determine the cubical contents of the water which would be held back by a dam at Gamboa. In order to give a general knowledge of the country, so far as to assist in our explorations and to identify certain hills and streams and points, the surveys were fairly accurate.

Senator HOPKINS. Yes; it depended on the purpose to which you wanted to put them?

Mr. WALLACE. Yes; it depended on the purpose you wanted to utilize them for.

Senator MORGAN. And in that sense they were mere sketches and not surveys?

Mr. WALLACE. They were sketches and surveys mixed. They had a survey, for instance, for a feeder up to the proposed Ahajuela Dam. That was an actual survey; and they had a survey for a railroad, I believe, up there. They are accurately run, and they are all right. But when you came to go back in the streams in order to get the size of the basin to hold a lake of water, then the inaccuracies developed.

Senator MORGAN. In projecting the surveys that you conducted through that Isthmus, did you rely upon the French surveys, discarding any necessity for going farther, or did you make resurveys?

Mr. WALLACE. We made a resurvey of the Chagres Valley above Gamboa. Of course where we found the French marks, and found that their notes were accurate, we worked the two in together.

Senator MORGAN. Yes. Now, how about the valley from Gamboa to the sea? Did you survey that also?

Mr. WALLACE. We did not survey it all; but we had parties over the whole distance, and it was all verified.

Senator MORGAN. Did you have the borings that the French had made there?

Mr. WALLACE. Yes, sir.

Senator MORGAN. And the cores they took out?

Mr. WALLACE. Yes, sir.

Senator MORGAN. How did you find the surveys that they have made at Bohio or in that vicinity?

Mr. WALLACE. The fault there was that they had not made enough of them. In other words, they were so far apart that they did not get the full shape of the valley, the gorges that underlay the valley.

Senator MORGAN. At Bohio, or between Bohio and the Caribbean Sea, did they profess to have reached solid rock below—

Senator KITTREDGE. Senator Morgan, would you not just as soon postpone the examination upon this subject until the time when we examine Mr. Wallace upon the question of the type of the canal?

Senator MORGAN. I wanted to get just one other statement about it.

Senator KITTREDGE. So far as I can see there is nothing improper connected with it; but—

Senator MORGAN. I am not going to ask him anything about the type of the canal; that is not my purpose.

Senator KITTREDGE (continuing). My idea was whether it would not be better to take that up at the time we take up the question of the type of the canal.

Senator MORGAN. I simply wanted to know from him how far these French surveys were reliable for the purpose either of topography, or of measurement of the cubic contents of a lake or a pool, or for the location of a dam, taking Bohio and that vicinity as to the point to which I wish to draw your attention. Did these French surveys purport to reach solid rock anywhere in the vicinity of Bohio?

Mr. WALLACE. Yes; there were certain borings that purported to reach the solid rock, but they were quite a distance apart.

Senator MORGAN. Did they profess to have conducted borings that revealed the existence of solid rock at certain ascertained depths across the valley of the Chagres River at Bohio, or in that vicinity?

Mr. WALLACE. Yes, sir; they did.

Senator MORGAN. What was the greatest depth below sea level at which those French borings revealed the existence of solid rock?

Mr. WALLACE. I think it was approximately 128 feet.

Senator MORGAN. How far above Bohio was that?

Mr. WALLACE. I do not remember. There were various lines there, you know, that were designated with various letters on the detail maps. I could not show you where that was; but there are detail maps showing those borings and showing the lines.

Senator MORGAN. You examined those surveys?

Mr. WALLACE. Yes, sir.

Senator MORGAN. And the cores that they brought out with their augers or their instruments?

Mr. WALLACE. Yes, sir.

Senator MORGAN. Did you also examine the surveys that had been made by the Walker Commission?

Mr. WALLACE. Yes, sir.

Senator MORGAN. Did you find the spots upon which those borings were located?

Mr. WALLACE. Approximately so; yes.

Senator MORGAN. Near enough to be certain that you were at the right place?

Mr. WALLACE. Yes.



Senator MORGAN. In your borings at the place that was recommended by that Commission as the foundation of the Bohio dam, at what depth did you find what you ascertained to be solid rock?

Mr. WALLACE. About 167 feet.

Senator MORGAN. At what depth did they find it?

Mr. WALLACE. They found it at about 128 feet; but there is one thing I would like to correct, and that is this: At the identical spot where they found 128 feet we practically found 128 feet, too; but they did not have their borings close enough together to get at the deepest point in the gorge.

Senator MORGAN. And you put them closer together?

Mr. WALLACE. We put them closer together; and then, I think, in one or two places they had struck boulders, and they thought that was bed rock, and did not go through those boulders to the rock below.

Senator MORGAN. Did you strike the same boulders?

Mr. WALLACE. In that vicinity, yes; I do not know whether it was the same boulder or not, but we struck the same bed of boulders.

Senator MORGAN. You struck the same bed?

Mr. WALLACE. Yes.

Senator MORGAN. You went through then?

Mr. WALLACE. Yes, sir.

Senator MORGAN. How far below these boulders was it that you found solid rock?

Mr. WALLACE. I do not recollect as to any particular boring now, except this, that we developed the solid rock line by putting our borings close enough together so that we found the deepest part of the rock gorge was 167 feet below the level of the sea.

Senator MORGAN. Yes. Now, when you struck a boulder you would go through it?

Mr. WALLACE. Yes, sir.

Senator MORGAN. You had diamond drills?

Mr. WALLACE. Yes, sir.

Senator MORGAN. Beneath the 128 feet, and from that point down to the 167 feet, where you found solid rock, what was the character of the soil?

Mr. WALLACE. That valley was filled with a heterogeneous mass of débris that has been brought down by the mountain streams, and along one side of the gorge was a blanket of very loose, porous gravel, with boulders in it that went up like that [indicating]. That was evidently due to the stream for ages having hugged that side of the gorge.

Senator MORGAN. And having carried the gravel in there?

Mr. WALLACE. And having carried the gravel in there, when the clay was deposited over on the other side.

Senator MORGAN. Yes.

Mr. WALLACE. But there would be streaks of clay and streaks of sand; then there would be a mass of driftwood; but there was a well-defined bed of very coarse, freely water-bearing gravel and sand that lay along one side of the gorge and down underneath in the lowest part of it.

Senator MORGAN. What did you ascertain to be about the thickness of this mass of driftwood you speak of?

Mr. WALLACE. Oh, it was in clumps; we could not tell. Sometimes we would strike a log, and there might be clay above and below it. The next time we would go through a foot or two of it, and then there

would be a break, and then a little bit more, indicating that there was a cluster of trees there.

Senator MORGAN. Brought in there by some flood?

Mr. WALLACE. Brought in there by some flood.

Senator MORGAN. In very ancient times?

Mr. WALLACE. Yes, sir.

Senator MORGAN. Would that run anywhere near the bottom of the gulch?

Mr. WALLACE. We found some at the bottom of the gulch. To explain that to you a little more fully, so that you can understand how that valley was made, I will state that in ancient times Gamboa was evidently the mouth of the Chagres River.

Senator MORGAN. And the sea came up to it?

Mr. WALLACE. And the sea came up to it here [indicating]. You will notice that it makes almost a right-angle turn to the Chagres here.

Senator MORGAN. I see.

Mr. WALLACE. This ancient gorge was from sea level to Gamboa here, from 167 feet at Bohio in here to 240 or 250 at Gatun, you understand.

Senator MORGAN. Yes.

Mr. WALLACE. And this was an estuary that gradually narrowed up to here, and the Obispo coming down from Culebra way and the Chagres from Alhajuela way poured into the head of that gorge, and the floods then carried down all the débris that came down from the mountains and gradually filled the gorge up and pushed the sea out, and finally formed and filled up what is now the lower Chagres Valley.

Senator MORGAN. From Gamboa out to the present coast line of the Caribbean Sea, you found a V-shaped gulch?

Mr. WALLACE. It was a V-shaped duct from Gamboa down to below Bohio, and after you got below there it widened.

Senator MORGAN. It widened still a little flatter?

Mr. WALLACE. Still flatter; yes.

Senator MORGAN. You do not know whether that gulch or gulf was made by sea water or by fresh water precipitated from the mountains or by some convulsion of nature?

Mr. WALLACE. It was below the sea level.

Senator MORGAN. It was below the sea level?

Mr. WALLACE. Yes; it was 240 odd feet below the sea level at Gatun, and 167 feet below sea level at Bohio, and it came up to the sea level at the mouth of the old river at Gamboa.

Senator MORGAN. But that gulch would extend from Gamboa out to the Caribbean Sea, with different slopes to the margins of it and different widths?

Mr. WALLACE. Yes, sir.

Senator MORGAN. Getting wider as it went toward the sea?

Mr. WALLACE. Yes, sir.

Senator MORGAN. It was across that gulf that these borings were made by what is called the Walker Commission?

Mr. WALLACE. Yes, sir.

Senator MORGAN. At Bohio?

Mr. WALLACE. Yes, sir.

Senator MORGAN. When you went there to locate this canal, what was the first point at which you made an exploration?

Mr. WALLACE. There were five simultaneous explorations put under

way at once, and the work was divided up between different parties. The section between Gatun and Colon, the entrance to the harbor, was under Mr. List. From Gatun to Bohio the work was under Mr. Nichols. From Bohio up to Obispo the work was under Mr. Dose, and the work in the upper Chagres Valley was under Mr. Ehle. That was the Chagres way. Then the work at the Culebra way was under Mr. Harper. We had a few engineers working for him, and afterwards I put in another force under Mr. Nichols to cross section and make the surveys and measurements between Obispo and Miraflores, and I moved Mr. Harper down and gave him a party to make investigations in the vicinity of La Boca. So it covered the entire line of the canal, and also the upper Chagres Valley.

Senator MORGAN. So that in projecting the canal there you did not adopt the French borings or the borings of the Walker Commission, but bored in the vicinity of the places where they had put down borings, and at three or four other lines crossing the valley of the Chagres River?

Mr. WALLACE. I used the French borings as far as they went, but I supplemented them with this additional information, to perfect them.

Senator MORGAN. Yes.

Mr. WALLACE. So far as I was able to determine, the French borings were accurate as far as they went.

Senator MORGAN. As far as they went?

Mr. WALLACE. Yes.

Senator MORGAN. At the line of the French borings how deep was it to the bed rock, at the deepest place below the level of the sea?

Mr. WALLACE. They did not strike the deepest place in the gorge; but the French borings and our borings supplemented the Walker borings.

Senator MORGAN. Yes—all on the same line?

Mr. WALLACE. On that and on other lines.

Senator MORGAN. Practically in the same vicinity?

Mr. WALLACE. Practically in the same vicinity; yes. We explored every possible line that looked favorable above the surface. I do not remember how many there were, but there were quite a number, from Bohio all the way up toward the Obispo.

Senator MORGAN. Yes. You then found that it was not practicable to put a dam at Bohio?

Senator KITTREDGE. Senator Morgan, is not that pretty close to the question of the type of the canal?

Senator MORGAN. I do not think so.

Senator KITTREDGE. Would you just as soon postpone the examination of the witness on that subject until the President shall have transmitted to Congress and made public the reports of the consulting engineers and the Canal Commission?

Senator MORGAN. I have not in my mind a comparison of the routes at all. I am not trying to ascertain facts that bear upon that question. They may do so collaterally, but not directly. I have another question in my mind about that.

Senator KITTREDGE. If you had just as soon postpone the examination of the witness on that subject until he testifies regarding the type of the canal, perhaps it would cover the subject just as well, if it is agreeable to you

Senator MORGAN. I do not care to mention to Mr. Wallace what I have in my mind——

Senator KITTREDGE. Oh, not at all.

Senator MORGAN (continuing). As to what I want to prove

Senator KITTREDGE. Not at all, Senator Morgan.

Senator MORGAN. But it is not at all connected with a comparison or a selection between a sea-level and a lock canal. It is not connected with either. I am not trying to prove that it is impossible to put a dam at Bohio.

Senator KITTREDGE. As I understand, Mr. Wallace a little later will appear before the committee to testify upon that subject and upon the engineering features involved in any plan of the canal.

Senator MORGAN. Yes, I know; and I simply wish to ask him this question:

Mr. Wallace, with the borings, maps, drawings, and all that that had been made by the Walker Commission—of which, I suppose, you had full information, had you?

Mr. WALLACE. Yes, sir.

Senator MORGAN. You had all those before you?

Mr. WALLACE. Yes, sir.

Senator MORGAN (continuing). Why was it that you did not accept their report that they had got solid rock across at Bohio at a depth of 128 feet? Why did you go on and put other borings in there?

Mr. WALLACE. That is rather a long story, because it involves some experiences that I had gotten into at other times in my life when I undertook to plan important works on a basis of knowledge furnished me by other engineers. I wanted to be "dead sure" of the facts.

Senator MORGAN. You had a right to be "dead sure" of the facts, as you were responsible for the location of the work.

Mr. WALLACE. Yes, sir; and I did not think the borings were taken sufficiently close together there to fully demonstrate the situation.

Senator MORGAN. Did you know at the time you undertook your borings, with diamond drills, that the borings that had been made there were with what are called churn drills?

Mr. WALLACE. Yes, sir.

Senator MORGAN. You knew that?

Mr. WALLACE. Now, it is only fair to the Commission to state that they had arranged for this same examination to be made before I went down there, before they engaged me; they had arranged to have these technical studies started. I, of course, simply took the work up when I got on the Isthmus and saw that it was thoroughly done.

Senator MORGAN. You mean the Walker Commission had arranged for this?

Mr. WALLACE. Yes, sir; the second Walker Commission had arranged for it.

Senator MORGAN. Did they arrange to take those borings with diamond drills or with churn drills?

Mr. WALLACE. The last Walker Commission——

Senator MORGAN. That is what I mean.

Mr. WALLACE (continuing). Arranged to take them with diamond drills.

Senator MORGAN. But they had not taken them when you got there?

Mr. WALLACE. But they had not taken them when I got down there. They were organizing for that purpose; but I wanted you to under-

stand that it was the Commission that had organized these parties to make these technical studies, and that they had that organization blocked out before they employed me, and that they themselves saw the necessity for thorough investigations to verify the work that had been done before that time. Of course, the reason I continued it and made it still more thorough was because I was responsible for the results, and I wanted to know the facts.

Senator MORGAN. And on the farther borings you ascertained that the solid rock at places there was not nearer the surface than 168 feet?

Mr. WALLACE. 167 feet on one line.

Senator MORGAN. That means below sea level?

Mr. WALLACE. Yes, sir.

Senator MORGAN. That is a few feet below the surface of the ground, is it not?

Mr. WALLACE. About 50 feet.

Senator MORGAN. About 50?

Mr. WALLACE. Let us see—I think about 30 feet, is it not? Between 30 and 40 feet; the ground is very irregular there, but it was in the neighborhood of 200 feet below the surface of the ground.

Senator MORGAN. But your measurements were calculated on the sea level?

Mr. WALLACE. Yes, sir.

Senator MORGAN. From the sea level down?

Mr. WALLACE. Yes, sir; and of course that was some distance below the surface of the water of the Chagres River.

Senator MORGAN. Yes. Now, you have spoken about making borings up what is called the upper Chagres—that is, where the Chagres River takes its bend around that point at Gamboa and comes down to the sea?

Mr. WALLACE. Yes; at Gamboa we made some borings for the Gamboa dam.

Senator MORGAN. The rock at Gamboa is about at sea level?

Mr. WALLACE. Yes; not below sea level.

Senator MORGAN. Not below; it is a little above?

Mr. WALLACE. It may be a foot or so above in some places, but it has that curved effect with the maximum depth about sea level.

Senator MORGAN. Starting at Gamboa and going out through the Culebra location of the canal and the cutting there, did you make borings through on the axis of the canal out to the Pacific Ocean?

Mr. WALLACE. Yes, sir.

Senator MORGAN. That is, out to the Bay of Panama?

Mr. WALLACE. Yes, sir.

Senator MORGAN. About how far did you space those borings?

Mr. WALLACE. My first instructions were to make them a kilometer apart, and to take them to a depth of 40 feet below the level of the sea; and then, after that line of borings was completed, to commence and take intermediate borings, and then to take them on the flanks later on.

Senator MORGAN. Yes.

Mr. WALLACE. My idea was to continue that right along until the work was entirely blocked out, or until it was let by contract, or until we had a full knowledge of the geological formation.

Senator MORGAN. Did you progress with these borings to their completion according to the plan arranged before the Commission were called to inspect the work?

Mr. WALLACE. I do not remember, but I think they were completed about a kilometer apart about the time I left there. Then the French, of course, had made quite extensive diamond-drill borings during their régime, although a great many of them did not get down as deep. They stopped at sea level, some of them, and some of them stopped at the various points above sea level.

Senator MORGAN. But your plan was to go 40 feet below?

Mr. WALLACE. Yes, sir.

Senator MORGAN. Everywhere?

Mr. WALLACE. Yes, sir.

Senator MORGAN. Both on the flank borings and those on the axis of the canal?

Mr. WALLACE. Yes, sir.

Senator MORGAN. And you had, so far as the spacings by kilometer were concerned, completed that work?

Mr. WALLACE. That is my recollection, that those were completed.

Senator MORGAN. Were those cores retained?

Mr. WALLACE. Yes, sir.

Senator MORGAN. They are accessible now?

Mr. WALLACE. Yes, sir.

Senator MORGAN. I wish to ask you whether in those borings you found what might be a continuous or solid rock at any point above sea level?

Mr. WALLACE. There are various places where dikes of rock run entirely across the Isthmus. For instance, at Culebra there is a dike—Culebra itself consists of a dike of basaltic rock that stands on an angle of about 45 degrees and extends up to two or three hundred feet above sea level. Then, immediately next to it, it gradually drops off into a hard, black slate, and then into a black shale, and finally into something that resembles a dark clay; and there are various places where there are dikes of rock, some of them only fifteen or twenty feet through, that are thrown up practically at right angles to the stratification, and other places where the rock lies in folds and comes up to a greater or less depth.

Senator MORGAN. The heaviest, toughest rock you found there is basalt; is it not?

Mr. WALLACE. Yes, sir.

Senator MORGAN. Does that lie in overlying sheets with the same dip?

Mr. WALLACE. No; it changes its direction. At almost every place where we struck it it would be lying at a different angle.

Senator MORGAN. At a different angle?

Mr. WALLACE. Yes.

Senator MORGAN. Now, these shales and slates—I believe you mentioned slates?

Mr. WALLACE. Yes.

Senator MORGAN. These shales and indurated material—what do you call that material?

Mr. WALLACE. The larger part of it was an indurated clay. It is a very tough clay, of material that will stand on a very steep slope, but will require blasting for its removal. A great part of that work near the top of the Culebra cut we had to blast, but we bored the holes with augers. In our cross sheets we called that all earth. The only thing we called rock was the basalt, which was hard rock, and then the slates,

and all that class of rock that was too hard to bore with an auger, but on which we had to use either a hand or a jump steam drill. That we called soft rock.

Senator MORGAN. You found a repetition, I suppose, of the basalt and the slate and the shale and the soft rock following in succession across that uplift?

Mr. WALLACE. Not regularly, but we would find it in that sequence in different places. Down near Obispo there is rock above the surface there that is a sort of a pudding stone. It looks as if it was a mass of bowlders that was held together by cement.

Senator MORGAN. That is a fact, is it not?

Mr. WALLACE. Yes; more like a natural concrete.

Senator MORGAN. That is what they call a natural concrete, is it not?

Mr. WALLACE. Yes.

Senator MORGAN. It is a pudding stone, held together by cement?

Mr. WALLACE. Yes.

Senator MORGAN. Causing that cohesion of gravel and powdered stone?

Mr. WALLACE. Yes, sir; it is sometimes called conglomerate.

Senator MORGAN. Conglomerate—yes. Now, the precise point I want to get at is this: Did you make an examination—a physical test—of the softer parts of this material that you found at various places along this line of borings, to see what effect the alternation of air and water would have upon it—whether it would dissolve it?

Mr. WALLACE. I observed that very closely, and the best example I saw of that was the slopes that had been exposed there for years, that the French cut down partially; and I found it in wells that they had dug, sample wells, which had stood perpendicular for years. Down near Panama, near the foot of Ancon Hill, there is a place where I saw a ditch that was about 17 or 18 feet deep, about 3 feet in diameter, that was cut through this indurated clay, that had stood there for years and years without enough of the stuff falling down into it to fill it up. It was used to convey water from a spring to a still on the Dias place. That had been there for years and years.

Senator MORGAN. The water passing through this same bed of indurated clay?

Mr. WALLACE. Yes, sir.

Senator MORGAN. The same material?

Mr. WALLACE. Yes, sir.

Senator MORGAN. That is all I want to ask Mr. Wallace about that subject.

The CHAIRMAN. Mr. Wallace, have you finished your statement?

Mr. WALLACE. Well, I do not know where I am now, Mr. Chairman.

The CHAIRMAN. If you have not, please go on with it.

Senator MORGAN. I want to ask Mr. Wallace other questions later, when we come to the comparison of the types of canal.

The CHAIRMAN. Yes, I think that after this examination is over he is coming again.

Senator HOPKINS. This morning you had covered, as you remember, the question of material, the construction of houses along the line of the Isthmus, and then discussed somewhat later the question of labor and the food supply. What other points did you want to discuss?

Mr. WALLACE. Well, it is a question of what information you gen-

men want. The papers that I have filed here, the report I made in February, and a brief statement of the work for the year I think contain everything that is essential, except so far as you gentlemen may wish to ask me questions. Of course there is an immense amount of stuff I could go into, illustrative of the methods that surround governmental work; but whether it is profitable or not I do not know. Some of those things can be corrected by administration; some of them can not be corrected without legislative action.

There is one thing I want to correct. I said this morning, I believe, that the new Commission were granted the right of emergency purchases. That was modified; I mean, it was limited. My recollection is that under \$1,000, material could be purchased in the open market. Up to \$10,000 they could be purchased in the open market by getting competitive prices; and over \$10,000, the ordinary governmental methods of bidding were to be observed. Of course that is all in the documentary records of the Isthmian Canal Commission. But I was asked, and I made the statement, about those emergency purchases; and I wanted to state it as nearly correctly as I could remember it.

The CHAIRMAN. Now, Mr. Wallace, as I understand, you are through making your statement to the committee?

Mr. WALLACE. That is, as far as the canal is concerned. I would like to say this, however, just to resume: That during that year we built up an organization of about 8,800 men, and also provided quarters for them, and also provided quarters for from two to three thousand men that were in the medical and sanitary departments and under the government of the Zone; that we had practically furnished water for Panama; that the sewage system was partly constructed, and water-supply and sewerage systems had been planned and estimated on other parts of the Zone; that machinery had been put in order and the technical studies had been practically completed—that is, I mean the engineering work; that the data had been accumulated in order to determine the necessary plan, and that a constructive organization was in a more or less operative stage and doing the preparatory work and gradually growing into a constructive organization at Culebra.

Senator KITTREDGE. I would like to hear your views, Mr. Wallace, on the subject of the eight-hour law.

Mr. WALLACE. My preferences, of course, would have been for the continuation of the ten-hour day. The question of eight hours, however, was forced on us; and along in, I think, February, there was a movement made to organize our men into a federation of labor. The idea was that each class of men—clerks and engineers and firemen, steam-shovel men and rock-drill men, carpenters, machinists, and all—should appoint a committee, and that they should meet, and that this general committee should appoint an executive committee of three who would be empowered to come and see me and make certain demands, and if their demands could not be secured to take it up with the authorities in Washington, these three men having originally selected themselves, and intending to bring about this organization.

I was made aware of it through my confidential sources, and I also obtained possession of the demands that they were going to make and the points they were going to raise; and one of them was the question of the eight-hour day. When I commenced to examine into that I had supposed that I was protected by a formal resolution of the Walker Commission requiring me to work the men ten hours; but I



found that my instructions, instead of being a matter of record, were verbal and were more in the nature of not being permitted to change from ten hours, which was the custom. I found that if the eight-hour law was operative in the Canal Zone and its penalties could be enforced there, I was subject to a liability of a very extensive fine if I even permitted those men to work over eight hours.

Therefore, for my own protection, and also to get instructions from the Commission, I submitted to Admiral Walker and the Commission various points that these men raised with me and that I wanted rulings on. One was the eight-hour day. I wanted to be forearmed, so that when they came to me whatever decision I made would be in strict accordance with the instructions that I received from the Commission, so that I would be sustained; because if I made a decision, and then I was overruled by the Commission, my usefulness there was ended. And that was the way we came to raise the question of the eight-hour day; and it was decided by the Attorney-General some months later that the eight-hour law applied there, and we put it in force.

Senator KITTREDGE. What would you advise in reference to its continuance?

Mr. WALLACE. That is a very serious question. At first blush it seemed to me as if it meant a 20 per cent increase in the cost of the work; but I now doubt that. It would make some increase in the cost; possibly 10 or 15 per cent. I do not think it would affect it to the extent of the whole amount. What I do think is that a provision should be made to make it flexible and to make the work of an emergency nature, so that the engineer in charge of the work can determine what classes of men he wants to work eight hours and what classes ten hours. The progress of the work will depend upon how continuously the steam shovels can be served with cars. That switching has got to be done in between, before the men go to work and after the men quit work. The men have got to be taken to and from their places of work by these train crews, and certain classes of your men have got to work ten hours in order that others may work eight.

Senator KITTREDGE. Do I understand that you advise us to recommend that the eight-hour law be eliminated from the Isthmus in order to give the chief engineer, or our proper official, a free hand in that direction?

Mr. WALLACE. A free hand in its application.

Senator KITTREDGE. That is what I mean.

Mr. WALLACE. You may have difficulties in eliminating it altogether, you understand. Of course it goes without saying that every restriction you put on that work will retard it and add to the expense, and every restriction that you remove will expedite it and lower the expense. That goes without saying; but I consider it absolutely impracticable to make a law that will apply the eight-hour law to the gold men and permit the natives and the foreigners and the aliens and the silver men to work ten hours. That will not work out in practice.

Senator KNOX. But if the eight-hour law were abolished altogether, and the hours of labor were to be fixed by the person having charge down there according to the circumstances, it would relieve the situation, would it not?

Mr. WALLACE. That is the ideal situation; there is not any doubt at all about that.

Senator KITTREDGE. What do you say in regard to the question of alien labor?

Mr. WALLACE. Your labor is so mixed there that you will have to treat it all alike. For instance, in your machine shop you will have a negro that will be a helper. You may find a Spaniard that will be a finished machinist; and in between these men you will find a white man running a lathe, you understand.

That work has all got to go on simultaneously. In your foundry you may find a molder that is an American, another molder that is a Spaniard, another molder that is a Jamaica negro, and you can not stop part of the work in that shop unless you stop it all. I mean you can not make any separation of your men.

Again, you will have a track force: That track gang may be Jamaica negroes. The foreman of the gang will be an American. You can not have that gang work two hours longer than the foreman works. Under the eight-hour law the foreman, who is an American, would only work eight hours.

You have a train crew. The engineman on that train crew is an American. The man that shovels coal in the fire box will be a Jamaica negro. The conductor on that train will be a white man. There would be two brakemen, colored men. That train has got to work as a unit.

When you come to the steam shovels, you have your steam-shovel men, white; your cranesmen, white; possibly the fireman, white; the pit foreman will be white; and he will have fifteen negroes at work extending the track to move the shovel up into the bank. It is hard enough to get work out of those men with a white foreman over them. You could not expect them to continue to work ten hours without one. If some of these blacks are required to work eight hours and others to work ten hours, on the same adjustment of pay, you will have trouble right off.

Senator KITTREDGE. Would the change in condition that you suggest work any injury to labor in this country—that is, the United States proper?

Mr. WALLACE. In my estimation it will meet a vigorous protest from your labor organizations in this country, of which a great many of the men on the Isthmus are members.

Senator KITTREDGE. In your judgment will that protest be just—be founded in reason?

Mr. WALLACE. I would not like to say as to that, because I do not want to pass an opinion on the propriety of the eight-hour law in this country. But there is nothing about that country there that would make any change in the ethical condition of the application of the eight-hour law in the United States.

Senator KITTREDGE. Will it in any manner affect the laborer in the United States?

Mr. WALLACE. I do not see how it would, except in this: That the labor organizations, starting out with the policy of eventually securing an eight-hour day from all employers, and having the United States Government pass a law requiring Government employees to work eight hours as a precedent to the later establishment of an eight-hour day as a desirable end, would of course look at it as a step in the wrong direction.

Senator KITTREDGE. Would they, in your judgment, be justified in so regarding it in the light of the conditions at the Isthmus—the character of the work?

Mr. WALLACE. I do not think they would, under the conditions; because I do not think any restrictions at all should be placed on that work if we expect to get it done economically and in a reasonable time.

Senator HOPKINS. Mr. Wallace, the labor down there will not be American labor, such as we have here in the States, will it?

Mr. WALLACE. I should judge that about 10 per cent of it will be; possibly 20 per cent. If all your labor down there was alien and all of your officers were whites, it would be a different proposition. But a large part of the white men that are on the Isthmus there come under the restrictions of the eight-hour law.

Senator SIMMONS. Mr. Wallace, you say that 10 per cent would be American labor?

Mr. WALLACE. I corrected that.

Senator SIMMONS. Do you mean to include in your estimate the Americans who work indoors, or do you mean 10 per cent of those that are actually engaged in the work of construction—manual labor?

Mr. WALLACE. Well, no. When it comes to manual labor, that is a different thing; but the eight-hour law is applicable, under our law here, to much more than a manual laborer, you understand; it governs mechanics.

Senator SIMMONS. What I want to know is, what percentage of those who are engaged in manual labor are Americans?

Mr. WALLACE. That depends on where you cut off the expression “manual labor.”

Senator SIMMONS. I mean men who work out of doors and who are not employed in clerical positions in connection with administration.

Mr. WALLACE. I suppose about 10 per cent of them will be Americans. That will consist of foremen in various capacities, trainmen, enginemen, cranesmen on your steam shovels and on the handling machinery, mechanics in your shops, boiler makers, blacksmiths, carpenters, etc. I do not presume you will find any Americans actually at work with a pick and a shovel, you understand, but as to the intelligent labor, there will be a great many Americans scattered through it, and the intelligent labor necessary to handle the machinery will eventually be practically all Americans.

Senator SIMMONS. These Americans that you speak of now are generally the men who superintend and direct and control the work of these darkies, in whatever line they are engaged?

Mr. WALLACE. Yes.

Senator SIMMONS. Whether in the shops or elsewhere?

Mr. WALLACE. Yes; but those men that look after that labor can not be made subject to the eight-hour day and the labor that they superintend subject to a ten-hour day.

Senator SIMMONS. I understand that.

Mr. WALLACE. They have got to work together.

The CHAIRMAN. Mr. Wallace, your idea would be, I judge from what you say, that the law, if it is changed, should apply to whites as well as the blacks, and to the blacks as well as the whites?

Mr. WALLACE. Yes, sir; I do not see how you can discriminate. That is my point.

The CHAIRMAN. Yes; I so understood you.

Senator KITTREDGE. As I understand, you believe that Congress should give a free hand in regard to hours of labor and character of labor?

Mr. WALLACE. Yes, sir; and its selection.

Senator KITTREDGE. And its selection.

Mr. WALLACE. I think that Mr. Stevens, or whoever you put in charge there, should be supported to the utmost, and that he should have just as few restrictions placed on him as possible in what he pays his labor, in the character of it, where he gets it, and the hours that he works it. The only way you can do your work down there successfully is to put it in the hands of a pure, absolute despot, and hold his hands up, and keep the wolves off of his back.

Senator SIMMONS. Mr. Stevens, can a man down there stand a greater amount of labor than he can in this country? That is—what I mean to say is, if eight hours is a reasonable day's work in this country, would not eight hours be just as reasonable a day's work over there?

Mr. WALLACE. A man can not stand as much physical exertion there as he can here; and, whether he is white or black, American or negro, he can not give the same quality of labor there continuously that he can here.

Senator SIMMONS. Then if it is unjust to labor to require them to work over eight hours here, would it not be more so to require them to work over eight hours there?

Mr. WALLACE. If you make the comparison in that way, I presume it would. There is no equity in regard to an eight-hour day here that would not apply to an eight-hour day there, as far as that is concerned. But what I am saying, as a matter of principle is, that that work is more or less of an emergency nature. It is 2,000 miles away from the seat of government, and you should, if you expect results, give the man in charge of it as full and complete authority as is possible. In other words, you should give him the same authority that he would get if he was handling that work for a large firm of contractors.

Senator SIMMONS. Whether you look at it from the standpoint of dispatch in the work or from the standpoint of economy in construction, why does not the same principle apply there, whether the Government is doing the work or not, as in this country?

Mr. WALLACE. It does; it will apply; and the thing that makes Government work more expensive than other work, and the reason it takes longer to build Government buildings, is because you do not apply the same principles to your Government work that a private contractor or a private citizen does to his work.

Senator MORGAN. Mr. Wallace, if the eight-hour law was extended to all labor in the Isthmus, when you came to let your contracts (if you do contract for the building of the canal) would it not make a very great increase in the amounts bid for the work, because of the existence of the eight-hour law?

Mr. WALLACE. Yes. In the first place, it will make an increase in your bids. Contractors will consider it, as a rule, about 20 per cent more expensive to do the work; but that is not all. If they are subject to the eight-hour law, and are subject to a fine whenever they permit or require a man to work more than eight hours, they will put even a greater percentage on it than that, for this reason: If you are doing

work on the basis of the ten-hour day, and you want to hurry a certain track through, and want to pay the men overtime and work them eleven or twelve hours for two or three days (which the men are perfectly willing to do if they get the extra payment for it), you can get that piece of work out of the way. But under the eight-hour law you can not work a man two hours more unless you are able to show that there is an actual emergency existing that requires it in that particular case; and every time you do it there is a chance for a controversy between the foreman and the men. The foreman will say, "This is not necessary;" and they will appeal it, and take it up, and claim that it is a violation of law.

Senator MORGAN. And go into court there and try a man on a criminal charge for violating the eight-hour law? Is that the idea?

Mr. WALLACE. I do not know; they would probably do that, or they might get some of you Senators to go and see the Secretary of War and get him to order the Isthmian Canal Commission to instruct the chief engineer to stop it. They might take that course.

Senator MORGAN. Or establish a court-martial, and try a man by court-martial down there?

Mr. WALLACE. I do not know what the legal process would be there.

Senator MORGAN. That would be a good place for a shyster, would it not?

Mr. WALLACE. Yes; first-class. (Laughter.)

Senator SIMMONS. I understand you to say that in your judgment you do not believe an eight-hour law would be practicable there unless it applied to Americans as well as to alien labor?

Mr. WALLACE. Well, turn it the other way—unless it applies to alien labor as well as to Americans. In other words, I do not think you can make any discrimination.

Senator SIMMONS. Well, the proposition is to apply it to aliens.

Mr. WALLACE. I understood it the other way, that the idea was to apply the eight-hour law to the Americans.

Senator SIMMONS. That is exactly what I mean—to apply the eight-hour law to the Americans and not to the aliens.

Mr. WALLACE. I do not think that is practicable.

Senator SIMMONS. Your judgment is that that is not practicable?

Mr. WALLACE. No.

Senator SIMMONS. And that is because these Americans work in with the aliens?

Mr. WALLACE. Yes.

Senator SIMMONS. As directors and superintendents?

Mr. WALLACE. The situation is so interlaced that you can not separate them.

Senator SIMMONS. If the foreman stops at the end of eight hours, the labor necessary in the work has got to stop, too?

Mr. WALLACE. Why certainly.

Senator ANKENY. Mr. Wallace, what is your opinion about employing Chinese on that work? Do you think it is well to do so, from your experience?

Mr. WALLACE. I have never worked Chinese—that is, I mean, as laborers.

Senator ANKENY. That is all they can do.

Mr. WALLACE. I have never seen what they can do; but as a general fundamental principle, I think the man in charge there should be

permitted to get his labor in China, or Japan, or India, or Spain, or anywhere on earth that he can get it.

Senator ANKENY. But the reason we bring this up, Mr. Wallace, is that, as you are aware, those people are proscribed; they may not come.

Mr. WALLACE. Yes, sir.

Senator ANKENY. Your idea is that if you were managing the work you would want the privilege of hiring them?

Mr. WALLACE. I certainly should, and I recommended that to the last Commission.

Senator ANKENY. I know you did.

Mr. WALLACE. And I tried to get a thousand Chinese and a thousand Japanese, in order that we might try them and see what they would do—which was the most efficient.

Senator ANKENY. Do you think the management of that canal should have that privilege?

Mr. WALLACE. I certainly do.

Senator ANKENY. In your evidence this morning you spoke of a cubic foot.

Mr. WALLACE. A cubic yard.

Senator ANKENY. A cubic yard, I mean. Now, I understood that was the mining, the moving, and the disposition of one cubic yard?

Mr. WALLACE. Yes, sir.

Senator ANKENY. That was the expense you included in that?

Mr. WALLACE. That was everything necessary to take a cubic yard of dirt out of position in the cut and finally dispose of it where it would never have to be touched again.

Senator ANKENY. Yes. Now, I was not quite clear—you said at one time it cost 40 cents and a fraction.

Mr. WALLACE. Forty-three cents.

Senator ANKENY. Forty-three cents. Then, owing to the May rains, as I understood you, it cost you 80 cents?

Mr. WALLACE. The May rains and the eight-hour day.

Senator ANKENY. You said there was 13 inches of precipitation in May.

Mr. WALLACE. Yes, sir.

Senator ANKENY. Did you mean it?

Mr. WALLACE. Yes, sir.

Senator ANKENY. Was that precipitation the reason that it cost twice as much?

Mr. WALLACE. No; not all. It was only one of the reasons.

Senator ANKENY. One of the reasons?

Mr. WALLACE. One of the reasons was the fact of that rain. Another reason was the fact that the eight-hour law went into operation. Another reason was because the force was unbalanced; we had men there to perform different parts of the work when there were not enough men to perform other parts of the work, so that we had men that we had hired by the month that we had to pay or employ in some capacity that was not what they were hired for.

Another reason was the fact that we were not furnished with the proper material or the number of laborers that we needed in the winter time to lay the tracks required to handle this work efficiently. Another reason was that the French cars and the French engines and the French rails were not suitable for the work, and we were having sometimes

as high as 15 to 25 engines off the track each day, and the shovels could not be supplied. It was this whole combination of circumstances.

Senator ANKENY. Do I understand you to say that under proper management that should not cost more than 40 cents a cubic yard?

Mr. WALLACE. The estimate that I gave the board of advisory engineers was 60 cents a cubic yard, as what I consider the fair average cost of that work to the United States Government, provided it could be carried on by administrative methods the same as an efficient contractor would carry it on who had ample means, ample modern American appliances, and was unrestricted and permitted to do the work in any way he pleased.

Senator ANKENY. That would be 60 cents a cubic yard?

Mr. WALLACE. Yes, sir.

Senator ANKENY. That is in gold, of course?

Mr. WALLACE. Yes, sir.

Senator SIMMONS. Mr. Wallace, I would like to ask you this question. I am not speaking now with reference to the present sanitary conditions there, because you do not know anything about those except what they were when you left there. But, speaking out of your knowledge and your observation and your experience gained while you were on the Isthmus, I want to ask you if, in your judgment, when modern sanitary methods are applied to the fullest possible extent upon the Isthmus conditions will be produced there which will make it safe for an American, with due care to his health, to live and work there indoors, and which will make it safe for those negroes down there who are accustomed to work under the tropical sun to work there without any serious injury to their health, and which will make it safe to life and the health of commerce upon the Isthmus after the canal is finished?

Mr. WALLACE. I can not answer that question without quite a qualification.

Senator SIMMONS. Just answer it in the best way you can.

Mr. WALLACE. It can be made more safe than it has been. It is true, though, that there always will be a percentage of increased risk to health there in a tropical country that does not obtain in a colder country, even provided you observe all the laws of health and sanitation. That is, there is a certain element of liability to disease in a tropical country that is due to the continuous heat, or due to the climate, as against residence in a colder country where you have summer and winter. That you can never get over, you understand. But you can remove a large part of the extraordinary tendency toward disease which has heretofore existed there in the past.

Senator SIMMONS. Can those conditions be so minimized by the application of these modern methods of sanitation that these men can work there without any serious danger to life or health?

Mr. WALLACE. Yes.

Senator SIMMONS. And can they be so minimized that when the canal is finished commerce can pass through the Isthmus without any serious danger to the health of the people who are engaged in that commerce?

Mr. WALLACE. Yes.

(The committee thereupon adjourned until to-morrow, Wednesday, February 7, 1906, at 2 o'clock p. m.)

[The following report, which was referred to by Mr. Wallace in the course of his testimony, is hereby made a part of the record, by direction of the committee.]

## ISTHMIAN CANAL COMMISSION.

PANAMA, February 1, 1905.

Rear-Admiral JOHN G. WALKER, U. S. N.,  
*Chairman Isthmian Canal Commission,*  
*Washington, D. C.*

SIR: I have the honor to submit the following report of the engineering and construction work, under the direction of the chief engineer, from the date of his appointment, June 1, 1904, to February 1, 1905, the report being rendered as of the latter date in order that the Commission may have a condensed record of progress and the necessary data and facts to enable it to reach a determination on the essential features of the project.

## METHODS EMPLOYED PRIOR TO JULY 1, 1904.

The chief engineer found the following engineers stationed at various points along the canal:

Mr. Charles List and party, at Colon;  
Mr. A. B. Nichols and party, at Gatun;  
Mr. H. F. Dose and party, at Bohio;  
Mr. Boyd Ehle and party, at Bas Obispo;  
Mr. A. C. Harper and party, at Culebra.

These parties were employed by the Commission about June 1, 1904, and were instructed to conduct certain technical studies, surveys, and investigations in the localities mentioned, but owing to a delay in receiving boring apparatus and other supplies, no progress was made along these lines prior to July 1.

At Culebra the chief engineer found that the organization and methods of the New French Company had been continued. This work was under the immediate charge of Mr. A. C. Harper as resident engineer, assistant to Colonel Black.

## ORGANIZATION OF THE ENGINEERING AND CONSTRUCTION DEPARTMENT.

The chief engineer immediately gave his principal attention and supervision to the work of the various engineering parties in the field; outlining methods for the future conduct of the engineering and construction features and the preliminary organization of his general staff.

## MECHANICAL DEPARTMENT.

Mr. Carl A. Strom, mechanical engineer, who had previously arrived on the Isthmus, was placed in charge of the care, repair, and maintenance of all machinery and equipment, and was instructed to proceed at once with the organization of his department.

## SUPERVISING ARCHITECT'S DEPARTMENT.

Mr. M. O. Johnson was employed as supervising architect and instructed to perfect an organization for the repair and maintenance of existing buildings, as well as the preparation of plans and esti-



mates and supervision of construction of such new structures as might be required in the future, and his department has been organized to that end.

#### DEPARTMENT OF WATERWORKS.

Mr. Carleton E. Davis, engaged by the Commission as engineer in charge of waterworks and sewers, upon reporting to the Chief Engineer on the Isthmus, was assigned to the duty of investigating and reporting upon the plans for the construction of sewerage and water supply at Panama and Colon and at such other points along the line of the canal as it might be found necessary to have works of this kind.

#### QUARTERMASTER'S DEPARTMENT.

Under the direction of the Chief Engineer, the immediate supervision of pay rolls, the assignment of quarters, the handling of requisitions, the record of employes, and other matters of a similar nature, were placed under Capt. Edward L. King, U. S. Army, who was instructed to organize a force for the proper conduct of this work.

#### MAPS, LITHOGRAPHING AND PRINTING DEPARTMENT.

A department of maps, lithographing and printing was organized under Mr. C. Bertoncini, who had previously had charge of work of this character under the French administration.

#### INSTRUMENT REPAIR SHOP.

The repair of engineering instruments and such other mechanical and electrical work as was necessary was placed under the immediate charge of Mr. M. Regis, reporting to Mr. Bertoncini.

#### GENERAL.

The heads of these various subdepartments, and the resident engineers in the field, reported direct to the Chief Engineer, whose immediate office organization consisted of an office engineer, Mr. W. J. Karner, and Mr. John F. Seager, private secretary, with such stenographers and clerks as were necessary for the conduct and general supervision of the work.

This organization has been perfected from time to time, and through it the Chief Engineer maintains administrative and executive control.

#### PROGRESS SINCE JULY 1, 1904.

The progress of the work from its inception to date has been as follows:

[Mr. CHARLES LIST, resident engineer, Cristobal.]

Mr. List has been engaged upon surveys, technical examinations, and other work on that portion of the canal between Gatun and Colon, including Colon Harbor.

The general result has been that sufficient facts have been secured

to determine the location of the canal in the vicinity of Colon and the plan of operation, including the necessary wharves and docks.

Plans and estimates were furnished the engineering committee during its presence on the Isthmus, and the same are recommended to the Commission, providing for—

1. The construction of a breakwater for the protection of Colon Harbor;
2. A direct entrance into the canal line;
3. The construction of an inner harbor at Cristobal-Colon;
4. The completion of the construction of the Gatun diversion.

It is believed that ample information has been obtained, and the details furnished, on which to base a decision as to the general features of the principal problems connected with the harbor, the entrance to the canal, and the Gatun diversion.

[Mr. A. B. NICHOLS, assistant engineer, Gatun.]

#### THE GATUN DAM.

The primary object of the examinations under Mr. Nichols was to determine the possibility of a dam across the Chagres Valley in the vicinity of Gatun, forming a lake, the surface of which would be approximately 60 feet above the level of the sea, as this had been suggested as a possible alternate plan.

The valley in the general vicinity of Gatun is approximately a mile in width, and examinations and trial borings have been made on every locality which gave any indication of promise.

While some form of rock or indurated clay has been found near sea level at certain points in the valley, further exploration along the line has always found a deep gorge filled with alluvial deposits and freely water-bearing material at such depths as to preclude the economical or safe construction of a dam in this general vicinity; and from facts developed in other parts of the valley, it seems evident that bed rock will not be found at any less depth than 163 feet below sea level at any point north of Bohio. While it is barely possible that at some point a dike of rock may exist across the valley, due to volcanic upheaval, it is highly improbable.

The results of all the studies in the Chagres Valley, from Gamboa to Colon, clearly point to the existence of a geological gorge, the bottom of this gorge being at an unknown depth between Colon and Bohio, but coming to within 163 feet below sea level at Bohio and gradually rising to the level of the sea in the vicinity of Gamboa, borings having been made to a depth of 175 feet below sea level without discovering solid rock, in the vicinity of Gatun.

Mr. Nichols' examinations have as yet failed to develop any satisfactory location for a dam in the vicinity of Gatun.

#### THE TIGER HILL CUT-OFF.

Mr. Nichols is also charged with conducting surveys and examinations to obtain data to enable the Commission to determine the advisability of the construction of what is known as the Tiger Hill Cut-Off, an alternate plan for the location of the axis of the canal

between Bohio and Gatun, suggested by the former Isthmian Canal Commission.

The result of Mr. Nichols' examination does not seem to justify changing the location of the canal by the adoption of this cut-off. While the length of the canal would be shortened, it is doubtful whether the advantage obtained thereby would be sufficient to justify the increased cost of construction, particularly when consideration is given to the fact that the amount of rock and other excavation will be largely increased, and that the canal for a portion of the distance would have to be carried across a swamp between two embankments, the success of this construction and the cost thereof being not possible of previous actual determination. The above applies to the 30-foot level. In case a sea-level canal is decided upon, the cost of the Tiger Hill Cut-Off will be largely increased.

[Mr. H. F. Dose, resident engineer, Bohio.]

The principal object of Mr. Dose's investigations in the vicinity of Bohio is to secure the data necessary to determine the practicability and cost of construction of a high dam in that vicinity.

His efforts have been mainly directed toward the detailed examination of two sites which have in the past received the most favorable consideration.

One of these sites is known as Line C, where the cross section of the valley above the surface of the ground seemed to indicate that it would be a desirable location for a dam, being the point at which a dam could be constructed with minimum expense.

The other is Line F, a location farther down the river, which has attracted the attention of the engineers employed by the former Commission on account of the fact that while the cross section of the valley was larger at this point above the surface of the ground, it was supposed that the depth of foundation would be less, and that on this account Line F would prove the more desirable.

The examinations made under the direction of Mr. Dose have been conducted with extraordinary patience and care; a diamond drill has been used, and sufficient penetration into the underlying strata made to determine definitely the character of the subformation.

As borings could not be made in the Chagres River during the rainy season, and it was considered necessary to take borings at short intervals, the cross section showing the complete line of bed rock has not yet been fully determined. It is expected, however, that this work will be completed within the next thirty days, when the matter will be covered by special report.

Sufficient information, however, has been obtained to determine the fact that there is little probability of finding a satisfactory location for a high dam in this vicinity, as the rock gorge in this locality is from 163 to 168 feet in depth and is filled with an alluvial deposit consisting of clay, gravel, sand, and driftwood, the material down to 150 feet, at least, being very porous and freely water bearing.

Of the two locations, however, Line C will prove the more practicable and economical, in case no other more favorable situation can be found. The practicability of using this site for a high dam and the cost thereof depend upon the development of a plan to secure the

construction of a curtain wall to the bed rock which will entirely cut off any possibility of the flow of water through the alluvial formation filling the gorge.

## ADDENDA.

Since dictating the above, which is based on Mr. Dose's report of December 31, 1904, Mr. Dose has completed the investigations on Lines C, F, and AZ, and has found that the minimum depth to solid rock suitable for a foundation on Line C is 163.6 feet below sea level; on Line F, 168.3 feet, and on Line AZ, 142.4 feet.

Line AZ, however, has not been investigated as thoroughly as Lines C and F, because the site is much less favorable than either of the other lines, it being much longer and generally an undesirable location for a dam. It is very probable, however, that if the borings were taken as close together on Line AZ as on Line C, bed rock would not be found above a depth of 163 feet.

After completing the surveys on the three lines above mentioned, Mr. Dose was directed to investigate thoroughly the line farther up the Chagres Valley, at a point called Buena Vista, between kilometers 25 and 26; and the latest reports from borings at this point show that rock has been found at a depth of 130 feet below sea level. A line of borings was projected across the valley, commencing at one side. As the borings have proceeded each new hole has shown the rock at a deeper elevation than the preceding one, indicating a sharp inclination of the bed rock towards the center of the valley. The probabilities are that the depth of the bed rock will be located at a much greater depth. At this date the borings are still progressing on the Buena Vista line.

[MR. BOYD EHLE, resident engineer, Bas Obispo.]

Mr. Ehle was charged with the collection of data to determine the possibility and advisability of a dam in the vicinity of Gamboa, and of the construction of a tunnel spillway through the Continental Divide into the Pacific Ocean, or into the headwaters of some stream leading into the Caribbean; also data necessary to solve the incidental problems connected with the construction of a dam at Gamboa, which would be factor in the building of a sea-level canal or a canal at any elevation up to and including 60 feet above the sea; particularly should it be decided to devise and adopt any plan of canal with a view to ultimately changing it to a sea-level canal, the construction of a dam at Gamboa in connection with the necessary spillways being a fundamental requisite of a sea-level or of any lock canal not containing the navigable-lake feature, and with a summit level under 60 feet.

The essence of the results of Mr. Ehle's investigation is as follows:

1. That the construction of a dam up to the height of 200 feet at Gamboa is practicable and economical, the bed rock being found at an elevation of approximately the level of the sea and the configuration of the ground above the sea level giving a cross section of the valley of moderate and reasonable dimensions at this point.

The situation admits of the construction of a solid core of masonry from the bed rock to the crest of the dam at an elevation of 200 feet above sea level, or at whatever elevation may hereafter be determined

upon, and the reinforcement of this central core with the broken rock and other débris from Culebra cut.

When it is considered that the distance between the center of gravity at Culebra cut and Gamboa dam is within the limit of the average haul necessary for the disposal of the large amount of material to be removed, the economy of the construction of this dam is apparent.

2. That it is possible to construct a tunnel spillway either through the Continental Divide on to the Pacific slope with a maximum tunnel length of 8 miles, or a tunnel spillway on to the Caribbean slope with a maximum tunnel length of  $3\frac{1}{2}$  miles.

3. That the approximate area of the reservoir contained by a dam at Gamboa would range from a minimum of 15 square miles at a water elevation of 132 feet above the sea to a maximum approximate area of 43.3 miles with an elevation of 200 feet.

This in connection with other data obtained by Mr. Ehle clearly demonstrates the fact the construction of a dam at Gamboa will satisfactorily and economically solve the problem of the control of the Chagres River, the provision of water for any low-level lock canal designed, and the supply of sufficient electric energy for lighting purposes, railroad operation, or the operation of machinery used in the construction of the canal, and incidentally a water supply for the towns and villages situated along the line of the canal, and for the supply of the work.

However, the chief engineer considers that a more ample allowance should be made for the works outlined above, and would suggest that not less than \$5,000,000 be considered the cost of the Gatuncillo tunnel, including the increase in the cross section of the river diversion between Gatun and the bay east of Colon; and that \$12,000,000 be allowed for the Pacific tunnel spillway.

He would also suggest that at least \$5,000,000 be allowed for the construction of the Gamboa dam and the auxiliary works, not including the power plant.

For the provision of electric-power plant with all the auxiliaries connected therewith, on the basis of 20,000 horsepower, he would suggest an estimate of \$3,000,000.

This, on the basis of the Gamboa dam being constructed to an elevation of 200 feet, would give estimates as follows:

1. The Gamboa dam, including the Gatuncillo spillway, and enlargement of the Gatun diversion, \$10,000,000.

2. The Gamboa dam, including the Pacific spillway, \$17,000,000.

Should either one of these plans be adopted, and the establishment of an electric-power plant receive consideration, \$3,000,000 should be added to the estimate.

While there is no question but that the installation of an electric-power plant at this time would be justified, it should not be considered a determining factor in the solution of this problem. As it would require from two to three years to construct the dam and install such a power plant, the work of canal construction would at that time be so far advanced that it is not considered that its installation would cause such saving in construction, operation, and maintenance of the canal as would justify any considerable expense beyond the mere cost of installation of the plant after the construction of the dam with its auxiliary spillways shall have been determined upon.

In other words, the advisability of the construction of the Gamboa dam, with its auxiliary works, should be determined upon irrespective of the electric energy to be obtained therefrom. This latter question should only be considered in connection with the expenditure necessary for that particular purpose.

[Mr. CARL A. STROM, mechanical engineer.]

On July 5, 1904, Mr. Strom was placed in charge of the mechanical department of the engineering and construction department, and he was instructed to immediately examine all the machinery available on the Isthmus and to organize a department for the maintenance and repair of the machinery plant and the machine shops at Cristobal-Colon, Bas Matachin, and Empire. This machinery had practically remained idle for over sixteen years, and was almost entirely concealed by the jungle, which has been cleared up by Mr. Strom's department and the buildings and machinery repaired and placed in service.

While a great deal of this machinery is out of date and will have to be supplemented to some extent by new modern machines, some of it is still available for use. Examinations and experiments are being continually made to determine the amount of equipment found on the Isthmus which can be economically used.

On December 31 Mr. Strom had succeeded in putting into satisfactory operation the shops at Cristobal-Colon, Bas Matachin, and Empire, as well as improving the conditions and organization of the smaller repair shops in the vicinity of Culebra.

His organization at the end of December consisted of 465 employees, of whom 51 were master mechanics, clerks, draftsmen, foremen, and high-class mechanics, paid in gold, the remaining 414 being mechanics and artisans of various grades of efficiency who had either previously been employed on the Isthmus or in adjacent countries.

The work of rebuilding and repairing excavating machines, engines, and cars, and taking care of other mechanical construction, has been handled by Mr. Strom's department in a satisfactory manner, and the Commission now has at its disposal a mechanical department which is rapidly developing and which will ultimately take care of all the needs and requirements of the work.

[Mr. M. O. JOHNSON, supervising architect.]

On July 19 Mr. M. O. Johnson was installed as supervising architect, in charge of planning, estimating and superintending the construction of new structures, and the supervision of repairs, alterations, and maintenance of existing structures; also the location of highways and the laying out of grounds adjacent to buildings.

Mr. Johnson, under the instructions of the chief engineer, has perfected an organization capable of supervising and carrying on the work of his department.

Approximately 2,400 buildings, in various stages of preservation and decay, were found along the line of the canal, all requiring more or less repair, it frequently being impossible to determine from an outward inspection the cost and nature thereof.

However, satisfactory progress has been made by the supervising architect and the forces under him, and every effort has been made to

push this work, in order to provide suitable quarters for the forces employed on the Isthmus.

In this connection it is highly desirable that ground be obtained in the vicinity of Panama for the erection of such buildings as will properly take care of the officers and employees of the Commission stationed in Panama, and their families. As the Commission is aware, our inability to provide properly for the employees at Panama has been due to the delay in securing possession of the necessary real estate at this point.

The work of this department has been seriously interfered with by delay in filling requisitions for material and by the inability of the Panama Railroad to furnish prompt and satisfactory transportation facilities.

[Mr. CARLETON E. DAVIS, engineer waterworks and sewers.]

Mr. Carleton E. Davis arrived on the Isthmus on July 19, 1904, and was placed in charge of the department of waterworks and sewers.

He was instructed to give especial attention to the water supply and sewerage systems of Panama, and the general plans thereof have been prepared by his department and approved by the Commission, the work now being under way. A reservoir has been constructed at Rio Grande Superior, and a distributing reservoir at Ancon is under construction. The work of laying outflow sewers in Panama has also commenced.

The chief engineer has been notified that the various materials needed for the construction of the water supply and sewerage systems are en route, and organizations have been perfected and preparations made for the prompt prosecution of the work upon the arrival thereof.

Recommendations have been made to the Commission in regard to the water supply of Colon, and also as to the paving of the streets of Panama.

The work of this department has also been seriously interfered with by delay in filling requisitions for material and by the inability of the Panama Railroad to furnish prompt and satisfactory transportation facilities.

[Capt. EDWARD L. KING, general quartermaster.]

Captain King was assigned to duty as general quartermaster on August 16, 1904, and placed in charge of the selection and assignment to quarters for employees in the engineering and construction department. His office also has charge of all records pertaining to the personnel of the various departments, the supervision of pay rolls and requisitions, and other similar matters. He also handles all applications for positions and the correspondence connected therewith, as well as all correspondence relating to routine matters affecting his department.

Captain King has perfected a system of checking time and pay rolls, by which it is possible to have these rolls ready for payment within the minimum time after the date of the pay period, and he is now handling in a very satisfactory manner the rolls for about 3,600 men, representing payments of approximately \$40,000 gold and \$130,000 silver.

He has also adopted a very complete system of keeping track of

individual men employed in this department, the nature of the work done by each, and the manner in which it is performed, so that the efficiency of any employee can be readily ascertained.

The force employed in all departments of the work under the chief engineer increased from 2,392 men in July to 3,620 men in December, this being the total number of men enrolled. However, the average number of men actually at work during July was approximately 1,500 and in December approximately 3,000, the percentage of men at work as compared with the number on the rolls having increased from 63 per cent in July to 83 in December, the practical efficiency of the force having doubled during these six months.

[Mr. C. BERTONCINI, map, lithographing, and printing department.]

Mr. Bertoncini was placed in charge of this department upon its organization, as he had been previously engaged in handling work of this nature under the French administration.

He has completed a general map of the Canal Zone, a map of the city of Panama, and a large number of maps and sketches of the canal and various localities along the line thereof, showing all possible information.

The printing and bookbinding branch of his office is constantly engaged in the preparation of circulars, reports, pamphlets, and all kinds of typographical work, for all departments of the Isthmian Canal Commission of the Isthmus.

[Mr. W. E. DAUCHY, division engineer, Culebra.]

The time and cost of excavating that section of the canal embraced in the Culebra division, through the Continental divide, will be the controlling feature in determining the time and cost of completing the entire canal.

On May 4, 1904, the French company turned over this work to Lieut. Mark Brooke, Corps of Engineers, U. S. Army, who had charge of the work at Culebra until May 26, under the direction of Col. W. M. Black, Corps of Engineers, U. S. Army.

On May 26 Mr. A. C. Harper took charge of the work, reporting to Colonel Black until the chief engineer assumed charge, from which time he continued at Culebra as resident engineer until November 20, 1904, on which date Mr. W. E. Dauchy was placed in charge with the title of division engineer, having control over all work on the Culebra division, including engineering, construction, and mechanical, his jurisdiction extending over such territory as might be necessary not only for the excavation but for the disposal of material removed, reporting to the chief engineer.

During the last six months the work at Culebra has been steadily prosecuted, the principal object being to determine the efficiency of the men and machines engaged in the work and to obtain reliable units as to capacity, time and cost, upon which to base future estimates for the completion of the work on this central division. Care has been taken to experiment sufficiently with the different classes of material and the different machinery available to determine these elements of time and cost.

The operations to December 31 have practically been conducted with the force and machinery formerly used by the French, it being



very desirable to know for comparative purposes later on what could be done with the French machinery and with the character of labor available.

This experimental work has determined, at least to the satisfaction of the chief engineer, that the work of excavation and removal of material from the Culebra cut can be performed on an average of not to exceed fifty cents per cubic yard. The average results for the eight months ending December 31, 1904, have been 54.7 cents, but during November and December the average cost was 50.1 cents.

The amount of monthly output has increased from 27,556 cubic yards in May to 42,935 cubic yards in December, the total amount of material excavated and disposed of from May 4th to December 31, 1904, being 243,472 cubic yards.

Since the preceding paragraphs were written the results of the operations for the month of January show that 70,650 cubic yards were excavated during that month, at an average cost of 46.8 cents. This latter amount also includes an arbitrary charge of 5 cents per yard to cover the installation of modern American machinery, which will be rapidly installed from this time on, and the cost of which should be spread over and absorbed by the entire work. This arbitrary charge of 5 cents per cubic yard is estimated to be amply sufficient to cover the entire cost of installation of all tracks, machinery, and appliances necessary for the excavation of Culebra cut.

During this period contracts have been let for the construction and delivery of fourteen modern American steam shovels and two hundred American steel flat cars, with various mechanical appliances for the unloading and spreading of the material on the spoil banks.

Up to December 31 three steam shovels had arrived and been delivered on the work, two of which had been erected and were doing experimental service at the close of the year.

During this eight months period the number of laborers employed on the Culebra division varied from a maximum of 669 in June to a minimum of 346 in October. During December the average number was 543 men, being only 10 more than the number employed in May, which was 553.

This comparative statement is applied to common labor alone, and shows the necessity for immediate radical measures to increase the number of laborers.

The increase in labor employed on the entire work during this period has been absorbed in the mechanical and building trades, in the construction of water supply and sewerage systems, and in the sanitary department, these departments being more attractive to the laborer than the work in the Culebra excavation.

The average cost of excavation at Culebra cut for the eight months from May to December, inclusive, during which time 243,472 cubic yards of material were excavated and disposed of, were as follows:

	Cents.
Installation of plant .....	1.5
Mining .....	11.2
Loading material .....	11.0
Transportation to dumps .....	11.5
Dumps .....	4.5
Maintenance of track .....	8.4
General expenses .....	6.6
<b>Average cost per cubic yard .....</b>	<b>54.7</b>

The average cost per month for the six months from July to December, inclusive, was as follows:

	Cents.
July .....	65.4
August .....	50.6
September .....	57.8
October .....	54.1
November .....	50.1
December .....	50.1

December 31st practically closed the period of experimentation with the French machinery and appliances. During this period close attention has been given to every detail of the work. The character of the men employed and the various conditions surrounding it have been carefully considered, and the nucleus of an organization for future work has been gradually formed.

January 1, 1905, may be considered as the commencement of the work with the use of American machinery and organization.

The results for the month of January show, as above stated, the excavation of 70,650 cubic yards, at the following costs:

	Cents.
Arbitrary for plant .....	5.0
Mining .....	11.0
Loading .....	7.9
Transportation to dumps .....	9.2
Dumps .....	4.1
Maintenance of track .....	6.1
General expenses .....	3.5

Average cost per cubic yard ..... 46.8

The character of the material excavated consisted of solid rock, soft rock, and earth, in the approximate proportion in which these various classes of material exist in the excavation.

Since the preceding paragraphs in regard to force were dictated, the efforts made by the chief engineer to obtain laborers from the surrounding country have resulted in the increase of the force employed at Culebra to 1,142.

#### GENERAL COMMENT.

Careful consideration of the results of the technical studies, observations, and experimental work has led to the following conclusions:

That the key of the entire canal problem is the excavation and removal of material in what is known as the Culebra division, this being approximately  $7\frac{1}{2}$  miles in length on the basis of the summit level of the canal being 90 feet above the sea, and 10 to 14 miles in length for summit levels at lower elevations.

While it is true that the actual excavation will extend on the 60-foot level, 30-foot level, and sea-level plans to a greater distance, 14 miles will practically be the extent of the Culebra excavation, as beyond this limit the character of the work changes to such a degree as to admit of different methods of treatment as compared with the excavation of the Culebra division.

In regard to the Culebra division, the following conclusions have been reached:

(1) That the completion of this division is the controlling feature of the entire work in both time and cost.

(2) That the controlling factor as to time is the number of excavating units which can be installed, operated, and properly served with transportation facilities.

(3) That the controlling element as to time and cost lies primarily in the exercise of constant, intelligent, and vigorous executive control over the work at all times; and secondarily, in the maintenance of proper relations between the various factors and facilities necessary for the conduct of the work as a whole.

The operation of the various units of excavation should be efficient and continuous.

To this end mining and blasting operations should be conducted in a prompt and intelligent manner, so that the material may be properly prepared for the work of the excavators.

Sufficient cars should be provided and properly handled, so that under no possible contingency should it be necessary for an excavating machine to be idle waiting for cars.

Repair parts of the various machines should be kept conveniently at hand and an efficient repair force provided, in order that no delays may occur by reason of the breakage of any part of an excavating machine.

Sufficient tracks, properly arranged, should be provided, so that cars can be fed to each excavating machine as a continuous operation, without requiring trains of loaded cars to be switched in order to permit the passage of trains of empty cars coming to the shovel from the same direction.

Sufficient engines should be provided to secure the prompt and efficient handling of the loaded cars and the return of the empties to the shovel.

Unloading facilities, dump cars, and other appliances should be provided to further assist toward this end.

The dumps should be of such number and so arranged as to permit of the continuous progress of the work during both wet and dry seasons.

A large number of spoil banks are necessary in order that alternate dumps can be used in case of settlement of banks.

The personnel of the supervisory force should be carefully studied and considered, and should not only be of proper capacity but sufficient in number, so that no delays will result through sickness, leaves of absence, or depletion from other causes.

#### COST.

From the observations of the chief engineer he is satisfied that 50 cents per cubic yard on the average for all classes of material is a safe and conservative unit price to apply to the excavation of material from this central section.

A mere perfunctory management of the work might increase this cost to 60 cents, and inefficient control increase it still further.

On the other hand, it is possible that, with efficient management, the use of the best machinery, the watching of every detail, and the inspiring of individual members of the organization with the zeal of emulation, the cost may be reduced to 40 cents per cubic yard, or even lower.

However, under the existing conditions the chief engineer feels warranted in recommending 50 cents per cubic yard as the unit price for this central section for estimating purposes.

#### CAPACITY FOR EXCAVATION.

He is also satisfied that each excavating unit, after the necessary track systems are properly installed and the organization perfected, will produce an average output of 1,000 cubic yards per machine per single daily shift, and that this average can be continuously maintained, yielding an output of 300,000 yards per annum per machine.

It is possible to work three shovels on each mile of distance on each of three levels simultaneously on each side of the center line of excavation. This will make a maximum number in actual operation of 144 excavating machines as a possible installation in 8 miles.

As it will require, however, at least two years for the installation of a plant of this character, and allowance for accident and delay during the progress of the work should be considered, it would not be wise to make calculations on an excess of 100 machines continuously at work.

This would yield an output of 30,000,000 yards per annum.

#### TIME.

On the sea-level plan there are, in round numbers, 186,000,000 cubic yards of material in the Culebra division, which would require on the above basis six years to excavate. Allowing two years for preparation and two years in addition for contingencies and unforeseen delays, it would seem evident that it would be possible to complete the canal or at least open it for use in ten years, certainly in twelve.

It should be borne in mind that this computation is based on single shifts only for each twenty-four hours, and the stoppage of the work on Sundays and legal holidays. The work could, of course, be still further expedited, at least sufficiently to compensate for extraordinary contingencies, by double shifts and continuous work.

On the 30-foot level plan there are in the Culebra division approximately 142,000,000 cubic yards of material to be removed, which would require about five years. Allowing two years for organization and the installation of the necessary machinery to give the full average output, and one year for contingencies, the work could be completed in eight years, or at least in ten.

A canal on the 60-foot level will require the removal of 111,000,000 cubic yards of material from Culebra, which upon the above calculations should be accomplished in seven years, at least in eight.

The chief engineer believes these estimates as to time to be liberal and conservative.

It may be considered as a fundamental fact that all work connected with the construction of the canal can easily be completed and in operation within the time required for the completion of the central Culebra division.

**THE GAMBOA DAM.**

Suitable rock foundation for a high dam has been found at Gamboa, and locations for tunnel spillways have been secured which will permit the reservoir formed by this dam to discharge either on to the Pacific or Caribbean slope.

It has been demonstrated beyond reasonable doubt that the Chagres River can be satisfactorily and safely controlled by a work of this character, which does not present any engineering problems that have not been already satisfactorily and repeatedly solved in various parts of the civilized world.

Investigations in the Chagres Valley have practically demonstrated the existence of a deep gorge, with solid rock formation surrounding it, extending from the Caribbean Sea at unknown depth but having a depth of 165 feet below the level of the sea in the vicinity of Bohio and rising to sea level at Gamboa.

At Bohio the bed rock forming the original gorge of the Chagres has been fully and carefully developed on three separate sections, and the valley has been found filled with alluvial deposits consisting of boulders, gravel, sand, clay, and driftwood.

The formation of the valley in this locality would indicate the necessity of the construction of a core wall, or curtain, to at least 150 feet below sea level.

While the problems connected with this dam are capable of satisfactory solution, and it is within the limits of practicability to construct a safe and satisfactory dam foundation at this point, the location at Gamboa is much more satisfactory, and, other things being equal, the latter site is preferred.

Examinations in the vicinity of Tiger Hill and Gatun have demonstrated that the formation in the Chagres Valley is such that it would be impracticable and inadvisable to attempt the construction of a dam, even at moderate height, in this locality.

The experimental work in the Culebra excavation has demonstrated that a large saving can be made in the excavation of material at this point as compared with former estimates.

It may be considered as a fundamental proposition that a canal should be constructed with the lowest possible summit level, and with the least number of locks and dams and auxiliary works. There seems to be no reason, therefore, why a canal should be constructed with a summit level exceeding 50 or 60 feet.

Granted that this elevation is not only possible but desirable, the possibility of the ultimate reduction of this height should be considered.

It is evident that the construction of a dam at Bohio and the creation of an artificial lake will introduce an element into the problem which would render any future reduction of the summit level impracticable, considering the time and cost and the possibility of the canal being closed to traffic for a number of years during the process.

It therefore seems that the construction of a dam at Gamboa is the logical solution of the question, this dam being capable of performing its functions regardless of any changes which hereafter may be made in the form or level of the canal.

A dam at this point would control the Chagres River and furnish

water for whatever summit level may hereafter be adopted, and also be available as a source of water and power supply.

Comparing the scheme of a dam at Gamboa with one at Bohio, it should be borne in mind that the destruction of a dam at Bohio by the forces of nature or by the act of man in time of war or otherwise would close the canal absolutely to traffic until such time as it was repaired.

The destruction or failure of a dam at Gamboa would at most only cause a temporary interruption of the traffic of the canal, and the interference with navigation would extend over a comparatively short period compared with the interference due to the destruction of a dam at Bohio and the use of the lake formed by such dam for purposes of navigation.

#### PLAN OF CANAL.

It therefore seems safe and conservative to say that the summit level should not exceed 60 feet in height.

While it is true that work can continue for some length of time at Culebra without the elevation of the summit level of the canal being absolutely determined upon at this time, still it would materially assist in the conduct of the work if this level could be decided, at least approximately.

It is so self-evidently true that a sea-level canal is the most desirable in economy of maintenance, operation, time of passage through it, and simplicity of design, plan, and execution, that as a problem per se it is the only solution, the deterrent factors being time and cost.

Comparing a plan providing for an approximate elevation of 30 feet above sea level with a plan providing for a 90-foot level, it should be remembered that a 30-foot summit level canal will cause the elimination of four expensive locks, and of a dam expensive and difficult of construction, and the substitution of a dam that could be easily, expeditiously, and economically constructed.

Comparing the 30-foot level with the 60-foot level, two expensive locks are eliminated, and the summit reduced to an elevation which would materially simplify the problem of a still further reduction, should the construction of a sea-level canal hereafter be deemed advisable.

Comparing this plan with a sea-level plan, it should be borne in mind that even with a sea-level canal at least one lock will be necessary in the vicinity of Miraflores. Therefore, only one additional lock will be required over and above that necessary for a sea-level canal. There will be no question as to the provision of an ample supply of water for the summit level as provided by the Gamboa dam.

Should a sea-level canal be determined upon during the progress of the work, comparatively little expense will be entailed by a change of plan, provided that change is made before the completion of the summit cut and before it is necessary to commence work on the locks in order to have them ready for use by the time the central excavation is completed.

On the basis of a canal 150 feet in width, the slopes in the summit section for a canal 30 feet above the sea, carried down to the necessary depth for a sea-level canal, would only narrow the channel to 120 feet.

It would be a comparatively easy matter to widen the summit excavation to the width necessary for a sea-level canal, provided it was found advisable to make a change during the progress of the work.

#### ESTIMATES.

The chief engineer would respectfully submit the following comparative estimates, showing the cost of the canal in accordance with the different plans previously discussed:

#### ISTHMIAN CANAL ESTIMATES—SUMMARY.

*Canal prism based on a width of 150 feet at bottom and minimum depth of water of 35 feet.*

Item.	Sea level.	80-foot level.	60-foot level.
Breakwater, Colon.....	\$5,000,000	\$5,000,000	\$5,000,000
Colon, inner harbor.....	8,373,000	8,373,000	8,373,000
Direct entrance.....	1,500,000	1,500,000	1,500,000
Harbor to Bohio, including levees.....	11,000,839	11,000,839	11,000,839
Bohio locks and spillway (including excavation).....	.....	7,000,000	9,000,000
Bohio dam and spillway.....	.....	.....	5,000,000
Pedro Miguel lock.....	.....	.....	6,000,000
Excavation, Bohio to Miraflores.....	125,000,000	85,000,000	59,500,000
Retaining walls, Culebra Cut.....	10,344,794	10,344,794	10,344,794
Miraflores lock.....	4,000,000	5,781,401	5,781,401
Pacific level.....	12,427,971	12,427,971	12,427,971
Chagres and Gatun diversions.....	8,000,000	8,000,000	8,000,000
Panama Railroad diversion.....	1,267,500	1,267,500	1,267,500
Gamboa dam and spillway.....	10,000,000	10,000,000	10,000,000
<b>Total.....</b>	<b>193,063,104</b>	<b>161,844,505</b>	<b>148,844,505</b>
Add 20 per cent for administration, engineering, sanitation, and contingencies.....	38,412,621	32,368,901	29,768,901
<b>Grand total.....</b>	<b>230,475,725</b>	<b>194,213,406</b>	<b>178,613,406</b>

February 13, 1905.

The above estimate is based primarily upon the unit prices adopted by the former Isthmian Canal Commission, as contained in its official reports, modified, however, by the results of the actual experimental work conducted under the personal direction and observation of the chief engineer. The quantities and unit prices are considered sufficient.

#### RECOMMENDATIONS.

The chief engineer therefore recommends to the favorable consideration of the Commission:

1. That harbor facilities be at once provided in the vicinity of Colon.

(a) By the construction of an inner harbor at Cristobal-Colon along the general lines of the report previously submitted by the chief engineer, and as modified by conference with the engineering committee.

(b) By the construction of a breakwater at least 4,000 feet long, to protect the east side of the outer harbor of Colon.

2. That the work of completing the Gatun diversion be proceeded with at once.

3. That the location of a dam with the crest approximately 200 feet above sea level be decided upon at Gamboa, and that the work

of construction be organized and commenced as soon as the plans for such structure have been approved by the Commission.

4. Considering the fact that the Panama canal is intended to serve the commerce of the world through centuries yet to come; that it is not a commercial enterprise to be carried forward for the immediate benefit of the present generation; that the American nation has voluntarily undertaken this great work, and that the question of merely a few years of time or a few millions of dollars of cost, more or less, should not be controlling factors, it would seem proper to treat the problem from a broad and liberal standpoint.

Therefore it is recommended that no temporary or tentative plan be adopted that will interfere with the final adoption of the "sea-level plan," which it is hoped will ultimately receive the favorable consideration of the Commission.

#### CONCLUSION.

In conclusion it is considered that if the above recommendations, either with or without modifications, are acted upon and approved it will remove the principal elements of uncertainty now existing in regard to the project as a whole, and will materially expedite the future progress of the work.

Very respectfully,

JOHN F. WALLACE,  
*Chief Engineer.*





# ISTHMIAN CANAL.

COMMITTEE ON INTEROCEANIC CANALS,  
UNITED STATES SENATE,  
*Washington, D. C., Wednesday, February 7, 1906.*

The committee met at 2 o'clock p. m.

Present: Senators Millard (chairman), Kittredge, Ankeny, and Morgan.

## TESTIMONY OF JOHN F. WALLACE, ESQ.—Continued.

(The following paper was referred to by Mr. Wallace during his prior remarks, and, at the request of Senator Morgan, was made a part of the record:)

*Statement of total number of employees paid in gold and silver.*

### DEPARTMENT OF ENGINEERING AND CONSTRUCTION.

	Gold.	Silver.	Total.
Chief engineer.....	16	7	23
General quartermaster.....	184	67	251
Supplies.....	101	608	708
Waterworks.....	120	1,365	1,485
Building.....	240	1,367	1,587
Mechanical.....	310	924	1,234
Communication.....	1		1
Culebra.....	559	2,349	2,908
Cristobal.....	70	222	292
La Boca.....	65	802	867
Maps and printing.....	4	18	22
Meteorology.....	1	4	5
Total.....	1,631	7,227	8,848

The CHAIRMAN. Mr. Wallace, do I understand that you desire to say something before we take up your examination again?

Mr. WALLACE. I would like to, in an informal way, if you will let me.

When I commenced the other day in reference to whether or not the first Commission had kept the implied bargain which was made between us about not interfering with me there and giving me orders only from the Commission as a whole and not from its individual members, I referred to a little incident with General Davis, and I want to make a short correction in it.

On page 453 of my testimony given Monday afternoon the following appears in quotation marks. This is what I said that General Davis said to me:

"You are here, and I am going to turn over the engineering construction work to you, but the powers that are granted to me under this commission I still retain, which practically leaves me in charge of the work, as I hold the purse strings."

Now, I did not intend to quote that as his language. What I intended to do was this: I did not intend this as a quotation of General Davis's words further than "You are here, and I am going to turn over the engineering construction work to you, but the powers that are granted me under this commission I still retain." My recollection is that in commenting on this remark in my testimony I added that this left General Davis practically in charge of the work, as he held the purse strings. That is, it was not my intention to attribute the statement that he held the purse strings as having been made to me by General Davis. I know him so well that I want to have the record exact on that point.

Senator MORGAN. The way you recite your testimony now, as you intended to give it, is exactly as I remember you did give it.

Mr. WALLACE. Yes, sir; it is simply a question of where the quotation marks are placed.

About that incident I am afraid that the committee received a wrong impression. I did not cite it to indicate that I had any dissatisfaction with General Davis; but the reason I cited it was to show that the Commission, after I had had what I thought was a thorough understanding with them, had given him instructions which conflicted with those they gave me, and that they had not, when they sent me down there, rescinded them. In other words, while they sent me down there as chief engineer and told General Davis he was to turn the work over to me, they left in his hands the real power that went with that office, and in a later conversation with the general himself he recognized that. He said: "Now, I realize, Wallace, that this is not the right thing to do; but the Commission have given me these powers, and, of course, I have got to exercise them until they take them away."

I cited that incident simply in answer to a question that was put to me as to whether the Commission had observed the bargain that was made between us at first. That was all. There was no feeling in it, and I was perfectly satisfied, after my tentative or temporary arrangement with General Davis, to let the thing rest until the Commission came down there and straightened it out.

But the fact I wanted to impress on the committee was the fact that I had hardly turned my back after my appointment before the Commission went to work and did something which showed that the importance of carrying out their verbal agreement with me did not appeal to them, either through inattention or—I do not suppose they did it wittingly, but it was simply an occurrence.

The CHAIRMAN. You have looked over your testimony and have had it corrected by the stenographer, have you?

Mr. WALLACE. My secretary, I think, has called his attention to that. I simply wanted to make that clear.

Another thing I want to make clear is this: During the year that General Davis and I worked together there—almost a year, nine months—our relations were perfectly harmonious; and there is no man that the Government ever had on the Isthmus that was any more capable or upright or that took any more interest in that work than

General Davis did. As far as General Davis himself is concerned, if I had to report to any single man I would have reported to him just as willingly, if not more willingly, than I would to a great many other men that have been connected with the work since.

The CHAIRMAN. As I recall your statement, Mr. Wallace, you certainly were borne out in that idea by your statement here before the committee.

Mr. WALLACE. Yes, sir; and there is another thing I would like to say about my testimony. I have looked it over generally, but where I have quoted people I do not want to be held to saying that the words I gave are the exact language used; because I realize and you realize that it is impossible for any man to remember the exact words that somebody else used to him some months or a year ago.

The CHAIRMAN. I think you have come pretty near the line all the way through.

Mr. WALLACE. There is another point, before you ask me questions, that I would like to touch on a little bit more fully, and that is this: I have cited, of course, just a few instances to illustrate the trouble in getting material and how it hampered the work. There is one thing, however, that I have not touched on before which I think is fully as important, if not more so, than that of material, and that illustrates what really is the cause of what we call in general terms "red tape." In other words, what from my standpoint I call "red tape" is simply system gone to seed; it is the disposition of chief clerks and officers to be so wedded to doing things in a certain way that they look on the way of doing it as more important than the thing to be accomplished.

One trouble about all our governmental Departments is this: That the under clerks that hold their positions through successive administrations, when Cabinet officers and heads of Departments are changed, are familiar with all this routine, and their knowledge of it makes them valuable men; and their interest is all to looking on the methods of work as more sacred and of more importance than the results to be obtained from the work. The trouble about the disbursement of Government funds is this: For a hundred years you have built up a series of checks on governmental disbursements with the view of preventing waste. That is all right in itself, but the tendency of the whole process has been to retard payments. I will cite just a few examples of the way that affects constructive work like this.

When I tried to bring in labor there I found that we could not advance money to our labor agents to even pay their own expenses or to pay the transportation of the labor. I found that when we undertook to do things and then prepared a voucher in the regular way, and that voucher got to the disbursing officer who was to pay the money, he constituted himself judge and jury and everything else, and claimed that he was in a position to interpret the meaning of the Spooner bill, under which we were working. And if he thought that specific authority had not been given in that bill to spend money for every specific thing—not the specific amounts, but amounts for certain specific purposes—he would not pay that money; and that tied everything right up until we could take it up with Washington.

Senator MORGAN. Mr. Wallace, that was not done merely in pursuance of a particular system established in the office or by the disbursing officer, I suppose?

Mr. WALLACE. No; that was done—

Senator MORGAN. That was done because he was held responsible for the payments of moneys?

Mr. WALLACE. I was going to explain that, Senator, when I got along a little further. I was not blaming the man; it was the system.

The whole reason of that is this: I had a talk with that young man. He was a young lieutenant in the Navy. I would say: "Why don't you take an interest in this work and try and find some way to help me do it? It seems that you and your clerks are trying to find ways to hinder it." "Well," he said, "Mr. Wallace, suppose I pay this bill for the transportation of these men here, and it goes through, and six months from now or a year from now, in checking my accounts in the Treasury Department they claim that that was unauthorized—that money will be charged back against my personal account or my bondsmen." What bothered me about it was this: In that particular case one or two of the first bills for that transportation were paid. Then some clerk in his office raised the question that he might be getting into trouble, and the next one he held up. Now, we did not know that was going to be held up. The result was that the steamship captain got out of that port without getting his money, and then all the steamship captains of that line refused to bring any more labor to the Isthmus until its transportation was paid in advance, and that we could not do.

This is only one incident, of course, and that was not this disbursing officer's fault. It was the fault of the system. The whole system is based on what we call "audit after payment." In other words, every disbursing officer watches these payments so closely that payments and vouchers are being continually held up in order to conform to special rulings that may have been made some time in the last hundred years by the Treasury Department officials or by the Comptroller. The result is that the delay in the payment of those bills increases the cost of your work. For instance, I think there have been four contracts let for steam shovels, and, if I am not mistaken, I think you will find that every time you have let a contract for steam shovels you have had to pay a higher price than you did before.

Now, why was that? Because the contractor had so much trouble in conforming to the regulations and getting his money, and his payments were delayed so long, that in the next bid he made he had to add something to the price to cover that.

Of course I realize that you can not do Government business the same way that you can private business. But on railroad work, or in a business way, the system is reversed. It is the system, as we call it, of "audit before payment." In a corporation office all that the disbursing officer has to bother him is to either have the money or have the voucher properly signed. It does not make any difference to him whether the board of directors authorized that payment or not; if the managing officer of the company has properly signed that voucher, and the head of his department has approved it for payment before the money is paid out, all he has to do is to show that voucher or that money, and the whole process is reversed.

It is that thing that has gradually brought my mind to the idea that eventually you will have to let that work in one big contract. If you do that, the only thing you are concerned in is the certificate of the engineers that the work has been performed. One voucher

covers it all. One voucher would cover all a contractor would do for a month or six months or a year, dependent upon the periods that the contract specified as payment periods. That contractor could pay out that money in a way that would expedite the work and not in a way that would retard it, and could relieve you of all this difficulty; and the probabilities are that while the contract price might be apparently more than what you could do it for under favorable circumstances for a short time, taking the whole thing together the contract price would permit the contractor to make his profit and still do his work for less money than it will cost you under the present method.

Senator MORGAN. Are there any other explanations you wish to make?

Mr. WALLACE. No, sir.

Senator MORGAN. I would like to examine you upon a little branch of this subject which has never yet been touched on; it will not take long.

The records here contain a statement of an agreement between Secretary Taft and the Government of Panama covering several points, one relating to postal affairs and another relating to finance and various other matters. You have read that paper; that is called a *modus vivendi*.

Mr. WALLACE. I saw it at the time it was made. I have not read it for over a year now.

Senator MORGAN. Without calling your attention particularly to the items of that *modus vivendi*, or making any criticism at all upon it, I wish to get at the circumstances that existed in Panama that made it necessary for the Government, through the Secretary of War, to attempt to make an arrangement of a temporary character in the nature of a *modus vivendi* to accommodate the canal construction to the business and the political assertions of authority made by the Government of Panama. I wish to know of you whether, while you remained there, complaints were made by the Government of Panama, first, in regard to the postal system?

Mr. WALLACE. Can I tell the whole story in a connected way?

Senator MORGAN. You can.

Mr. WALLACE. Of course you remember when the treaty upon which our franchise is based was made with the Republic of Panama. It was rushed through. It was made in a very short time, and it was an adaptation, or an attempted adaptation, of the treaty which was pending between the United States and Colombia, which Colombia had refused or declined to ratify, before the Panama revolution. For some reason it was thought necessary to get that treaty executed between the Republic of Panama and the United States Government at the earliest possible moment; and it was also thought wise, evidently, to make as few changes in the wording of the original treaty as possible, in order that it might be adapted to the situation in Panama.

After the treaty was made and General Davis was sent down there—of course, I will say parenthetically, General Davis can give you more information on this question than any other witness that you could call—it was found that under that treaty we had a canal and a port at each end of that canal which was under the control of another government. In other words, the reservation of the ter-

ritory occupied by the cities of Panama and Colon constituted those cities, you might say, governmental islands in this Canal Zone—not physical islands, but the territory was practically surrounded by Zone territory. There was a clause in that treaty, however, that provided for an agreement as to the line of demarcation or the boundaries of these two towns. General Davis, in his negotiation with the authorities of Panama, of course, endeavored to conserve the interests of the United States to the extent of his ability and capacity; and he so agreed with the Panaman authorities as, you might say, to let the canal slip by the boundaries of these two cities, so that we could secure for the United States a United States port in the territory embraced in the Zone without being compelled to use the port of Colon on the Caribbean side and the port of Panama on the Pacific side.

After he had made this arrangement to give the United States the port of La Boca, at the mouth of the canal on the Pacific side, and the port of Cristobal or Cristobal Colon on the Caribbean side—while at Cristobal Colon we did not have sufficient water, we constructed docks there and dredged and deepened the canal so that we had a port there—he established regular port officials, port regulations; and the result was, on the Panama side, that vessels instead of clearing to and from Panama from Pacific coast points cleared to and from La Boca, which was a United States port. That cut off certain dues and control over the port from the authorities of Panama, and, of course, with it went fees and revenues. Also, it permitted us to import as into the United States territory anything that we needed without its going through Panama territory at all.

Senator MORGAN. And without paying port dues?

Mr. WALLACE. And without paying port dues or anything of that sort.

As far as the post-office was concerned, our Government established post-offices in the Zone, and the post-office at Ancon was practically across the street from Panama; and the result was that instead of the Panama postal authorities getting their 5 cents for their postage between Panama and the United States, and the same at Colon, all the United States matter would be brought over into Zone territory and mailed from the United States post-offices, you understand, under the 2-cent law; and in that way the authorities of Panama were deprived of a whole lot of revenue.

The Panama merchants found that if stores were established on the Zone and merchandise was imported free of duties for the canal employees and was sold to them through stores and through commercial men, their revenues would be interfered with.

Of course there were also questions in regard to the banking. Our Government employees there were given their choice between taking their pay in United States currency and having it exchanged in silver or getting a Treasury draft. Our employees, for instance, would take a Treasury draft and would go and sell that to some merchant at a premium; and that, of course, took away revenue from the Panama banks.

The CHAIRMAN. Who made these Treasury drafts—the paymaster, the disbursing officer?

Mr. WALLACE. The paymaster; yes.

The CHAIRMAN. He gave those drafts, I suppose, on the subtreasury at New York?

Mr. WALLACE. On the subtreasury; yes. Now, that is only three things. Of course there are others that I do not recollect; but that made a great deal of friction between the Panaman authorities and the United States authorities. In other words, they felt that we were driving a sharp bargain with them.

That was aggravated by the fact that our authorities did not consider it economical to buy ice and take electric lighting from this Electric Lighting and Ice Company there, the stockholders of which were the influential people of Panama. And it was the situation that grew out of that that caused the Secretary and Mr. Cromwell to make their special mission there on the *Columbia* to try and straighten that matter out.

Does that answer your question?

Senator MORGAN. I think it does, except in one particular. You were getting your ice and electricity from this company that was in Panama?

Mr. WALLACE. When we first went down there that was the only source there was.

Senator MORGAN. The only source there was?

Mr. WALLACE. But we immediately commenced to arrange to manufacture our own electricity, and——

Senator MORGAN. And it was your beginning to make that arrangement for manufacturing that caused this controversy?

Mr. WALLACE. That was one of the things.

Senator MORGAN. Yes—in part, I mean?

Mr. WALLACE. In part; yes.

Senator MORGAN. And was that settled in this *modus vivendi*, do you recollect?

Mr. WALLACE. No; I think that question was ignored entirely, because that was something that could not very well be brought into it. The only things that I understood were taken up in that agreement were those things where the condition of the formal Bunau-Varilla treaty had to be changed.

Senator MORGAN. And those questions, I suppose, were what might be considered international questions between Panama and the United States?

Mr. WALLACE. Yes, sir.

Senator MORGAN. But private claims were not considered?

Mr. WALLACE. Oh, no. This public utility company matter was a private arrangement.

Senator MORGAN. Yes; and that was not attempted to be settled in this *modus vivendi*?

Mr. WALLACE. No; no attempt was made to settle that.

Senator MORGAN. It was merely a controversy between the Government of Panama and the Government of the United States as to the proper interpretation of the Bunau-Varilla treaty?

Mr. WALLACE. Yes, sir.

Senator MORGAN. And that interpretation was given in that *modus vivendi* to stand, not as a ruling that would obtain always, but temporarily?

Mr. WALLACE. I understood it was intended as a temporary ruling to bridge over a present difficulty.



Senator MORGAN. That is what was stated. I do not care about going into the particulars of it; I merely wanted to get that historical statement before the committee.

Senator ANKENY. Mr. Wallace, I would like to ask why that Panama postal arrangement of which you have spoken was inaugurated there? Was that your doing?

Mr. WALLACE. No, sir. I was on the Isthmus when it was made, but I was not a party to it at all. It was not within my functions or jurisdiction at all.

Senator ANKENY. Why was it done, then, as you understood it?

Mr. WALLACE. Secretary Taft or General Davis or Mr. Cromwell could answer that question better than I; but the way it appealed to my mind at the time was that it was intended to placate the Panamans and to give them a source of revenue.

Senator ANKENY. Solely for that purpose?

Mr. WALLACE. Yes.

Senator ANKENY. It was no convenience to you?

Mr. WALLACE. Oh, no; it was an inconvenience to us.

Senator ANKENY. I presume so.

Mr. WALLACE. Yes.

Senator MORGAN. The modus vivendi was concluded while General Davis was governor?

Mr. WALLACE. Yes, sir; but not under his jurisdiction. We had an American minister there.

Senator MORGAN. Mr. Barrett?

Mr. WALLACE. Yes, sir. The situation was very peculiar. We had Admiral Walker, chairman of the Commission, who was supposed to control the relations between the Zone and Panama; General Davis, the governor, who naturally, I presume, thought it was his duty to do it, and Minister Barrett, who got his orders direct from the State Department. My understanding was that one reason why the Secretary went down there as the President's personal representative was in the general interests of harmony.

Senator MORGAN. He went as Acting Secretary of State, did he not?

Mr. WALLACE. I do not know what the understanding was. My impression was that he was there as a sort of special representative of the President—a sort of envoy extraordinary, or whatever you might call it.

Senator MORGAN. That is about the idea; but at that time he was acting also as Secretary of State, was he not?

Mr. WALLACE. Yes, sir; I believe so. I do not want to say that he was Acting Secretary of State, however, because I do not know that.

Senator KITTREDGE. Mr. Wallace, do you advise that the construction work be done by contract or directly by the Government?

Mr. WALLACE. I should advise that it should be done by contract, most certainly. I do not mean by detail contract, but I mean in the broadest and most general way. If I were responsible for that work as representing a corporation, my idea would be to draw up general specifications for it and then ask for bids, not only on different divisions and different sections and on all items of work, but also to ask for bids for doing the work as a whole. I would go farther than that. I would suggest to contractors that they should be free to make bids for doing the whole work on their own specifications, and to

state what those specifications would be. Then, after these figures all came in, the chief engineer and the Canal Commission could properly analyze them, and could select from them the one which would give the most economical and efficient results in the end.

We have an example in our governmental history of the letting of a general contract in the case of the one made with Captain Eads for the improvement of the mouth of the Mississippi River. That was done on the most general specifications, and Captain Eads did his own engineering work and accomplished that work under the most general supervision on the part of the United States Engineer Corps in the line of seeing that the contract was complied with and that the results were obtained. And I presume that was the most satisfactory work that has ever been done for the United States Government, considering the difficulties.

You have another example of a contract being let in that way in New York, in the case of the subway, where, after the general plans were completed and general specifications drawn, the entire work was turned over to a contractor, and the rapid transit commission did not have anything to annoy them or anything to do except to see that the result was accomplished according to their general design. There was no scandal. You hardly heard of that work until it was done.

If the Panama Canal could be constructed in the same way, you would never hear from it. It would eliminate all questions of red-tape; it would eliminate all political questions, and the work could be carried on without scandal and without any noise, economically and efficiently.

Of course that is simply my personal opinion, and I give it to you simply for what it is worth, on its merits.

Senator KITTREDGE. I assume, however, that the bids of contractors, if the work goes by contract, must be reasonable?

Mr. WALLACE. Yes. That is a matter that your Commission and your chief engineer can advise you about when you get those bids in. But there is one thing to bear in mind, and that is this—and that is why I made the suggestion—that you ask for those bids on the basis of a lump sum for the entire work. There you have a chance to compare those bids with the estimates that have been made by your former chief engineer and the former Isthmian Canal Commission and the new Commission and the advisory board, and you can not go very far wrong.

Where a contractor takes that work as a whole he will evidently take it for less, in all probability, than he would take it for if he had to make separate bids on each separate thing he did. In other words, the sum of the contractors' unit prices would undoubtedly make a total contract price that would be in excess of what any contractor would be willing to do the work for as a lump sum, for this reason: If a contractor bid on each separate piece of work, like the tide lock at Miraflores, the Gamboa dam, the Bohio dam, the Culebra cut, the Colon breakwater, and all that sort of thing, he would have to figure so that each particular piece of work would be as certain as he could anticipate in his mind to yield him a profit. Whereas if he had the whole thing, what he lost on one job he could make up on another, and he would probably figure closer on the

entire work than he would if he took each separate piece of work by itself.

Senator KITTREDGE. What kind of an organization do you recommend to conduct the work until the contract is let, at least?

Mr. WALLACE. Pending the letting of the contract—that is, if the work is to be continued by hired labor—the more you can condense that organization the better. My idea always has been that you can not obtain efficient executive action from any body of seven men. To get executive action you must have concentrated authority, and you must have authority and responsibility properly balanced.

If you are tied to the form of a commission and do not want to change from that, the most efficient way is, of course, an executive committee of three men. But the man who is in charge of the construction on the Isthmus, whether you call him chief engineer or whether you call him director of works, should be the head of that commission. The next man to him should be the governor of the Zone. The third man should be charged with the procuring of the supplies in the United States and the procuring of the men here, their shipment, and so on. But if there is any subordination at all, he should be subordinate to the man that has the supreme charge of the work on the Isthmus as chief engineer or director-general, or whatever you choose to call him; and that man should have as free, absolute power as you can give him.

The way matters are arranged there now, the Commission, which is the power immediately above him and which directs him, naturally knows less than he does. The chairman of that Commission naturally knows less than the Commission. Mr. Cromwell knows less than the chairman. The Secretary of War knows less than Mr. Cromwell. The President of the United States (who, under the Spooner Act, is charged with the entire responsibility) knows less than the Secretary. In other words, you have a chain of five masters over that man that you are holding responsible for the execution of that work down there, who is on the ground, and who is the man that has to give you the results.

Senator MORGAN. Do you introduce Mr. Cromwell as one of the masters?

Mr. WALLACE. Yes, sir.

Senator MORGAN. Why?

Mr. WALLACE. For the reason that I explained the other day, that he has practically been acting in that capacity—that is, to my mind he has. I do not go behind the impressions that I have received, except that statement that was published through the Associated Press, presumably authorized by the Secretary of War, in which it was stated that he was the adviser on all matters.

Senator KITTREDGE. Then, as I understand, you advise that the Commission be reduced to three?

Mr. WALLACE. My suggestion would be that the Commission be reduced to three; that the chief engineer or director of works should be the head of it, and that he should report directly to the President of the United States. If it is necessary for him to report through one of the Departments, of course it might be done, but every intermediate cog you place in the machinery is going to interfere with the efficiency of your results.

Senator MORGAN. I notice, Mr. Wallace, that you all mention an

executive committee, and that that committee consists of three persons. What is the necessity of having an executive committee at all?

Mr. WALLACE. You could get along without it. The only object of having it is this: In the first place, as I understand it, it is necessary to govern the Zone by a separate individual from the man that looks after the canal work, and it would to some degree relieve the man in charge of the execution of the canal work to have a man there as governor to keep the peace and enforce the sanitary and port and quarantine regulations and to have some one to purchase the material for him in the United States, that would in a measure be his coequal in authority.

Senator MORGAN. That brings up the proposition I have been debating very seriously in my own mind as to the necessity of having a governor of the Zone who is also a Commissioner. Why not separate his office entirely from the Commission, and let him take charge of keeping the peace and the regulation of the Zone and the conduct of the people?

Mr. WALLACE. The trouble about that is that you institute divided authority. Suppose, for instance, that your canal employees get into some trouble there—almost all of the people on the Zone are connected with the canal either directly or indirectly—and suppose he takes a different view of what is necessary to preserve the peace than the director-general or the chief engineer does. There is a chance for a good deal of conflict there, and it is too small. The way it is now, with the chief engineer and the governor of the Zone both having a connection with the canal work, they get together, and I think there is more harmony than there would be if the governor of the Zone reported to a different source of authority in the United States from what the chief engineer reports to.

Senator MORGAN. In regard to the executive committee of three persons, is it necessary for the efficiency of such a committee that they should reside in the Zone and make that their place of residence as distinguished from Washington?

Mr. WALLACE. The headquarters of that work should be on the Isthmus, but I do not think it is fair to the man in charge of that work there to require him, either by law or order, to always continuously remain there. I think he ought to be free, if it is necessary for him to-morrow morning to get on a steamship to come to the United States for some official matter that he thinks ought to be attended to here, to have the privilege of coming without getting authority to come.

Senator MORGAN. Could he not get that from his cocommittee men?

Mr. WALLACE. If they are down there; yes.

Senator MORGAN. Ought not they to be there?

Mr. WALLACE. Yes. That is, that should be their headquarters.

Senator MORGAN. And let them give leaves of absence to one of their members?

Mr. WALLACE. Yes. Now, there is no reason that I can see, and my experience that I had with the work certainly leads in a contrary direction, for any office of the Isthmian Canal Commission in Washington at all. The farther you can get that work away from Washington, and the harder you can make the line of communication to Washington, the better you will have that work conducted.

Senator MORGAN. I agree with you in that.

Senator KITTREDGE. What do you suggest regarding the salaries that should be paid the Commissioners and their employees in canal construction?

Mr. WALLACE. As far as the chief engineer is concerned, Mr. Stevens or anybody else, I do not care who holds that office, there is no amount of money that you can pay him that is too large—that is, the way that work is run now.

Senator MORGAN. That is the engineer's view of the subject?

Mr. WALLACE. That is the engineer's view of the subject; yes.

Senator MORGAN. How about the other man—the man that has to pay the money?

Mr. WALLACE. Well, as a taxpayer, I am willing to contribute my share of Mr. Stevens's salary if you make it \$100,000 a year.

Senator MORGAN. You are an enthusiast on the subject of the canal, I suppose?

Mr. WALLACE. I am, yes; like you are. [Laughter.] Now, honestly, leaving all joking aside, I believe that the \$30,000 which you pay Mr. Stevens is not too much salary to pay for the responsibilities and for the work that he does for you there.

Senator MORGAN. But you were willing to do it for twenty-five?

Mr. WALLACE. No; my salary and that of Mr. Stevens were practically the same. I was furnished a house in Panama—that is, I got a house that was furnished—and the Commission gave me a carriage and a coachman and the keep of three horses, and the house was provided with one servant who was the custodian of the house, and they considered that equivalent to \$30,000 a year.

Senator MORGAN. Does Mr. Stevens get the same accommodations?

Mr. WALLACE. I do not know; but he lives up at Culebra. He does not live down in the city of Panama. Of course they furnish him his house, and his house is furnished; but I do not begrudge him that. The place is worth \$5,000 more than it was when I was there, anyway.

Senator MORGAN. You would be willing to raise his salary to \$35,000 a year, including the furnishing of the house, the service, and the carriage, etc.?

Mr. WALLACE. Yes. When I was not willing to stay at twenty-five thousand, I think that is a sufficient answer that I do not think it is enough. [Laughter.]

Senator KITTREDGE. What about the salaries of the other Commissioners?

Mr. WALLACE. If the other Commissioners reside in Washington and do not have any more authority or responsibility than they have now, I think they are well paid. If they should devote all their time to that work, and were charged with the responsibility, I should say that twelve or fifteen thousand dollars a year would be more reasonable compensation for them. If they reside on the Isthmus, I should say that the governor's salary is about right the way it is now. It should be somewhere between fifteen and eighteen or twenty thousand dollars a year—that is, if he is charged with the governorship of the Zone and the responsibility of a member of the executive committee and also acts as minister and looks after the state matters with the Government of Panama.

Senator MORGAN. If there were six members of this committee at

this table now, Mr. Stevens would get as much salary as all of those six members of the committee, would he not?

Mr. WALLACE. I presume so, and I presume he earns it. [Laughter.]

Senator MORGAN. Do you think that he would more earn it in executing the plans that this committee has to recommend to the Senate than we would in studying them out and in ferreting out all of the difficulties of that situation down there, recommending them to Congress, and trying to carry them through Congress?

Mr. WALLACE. No, sir; but if you had to perform your functions on the Isthmus I should say that you would be entitled to a very large raise of salary.

Senator MORGAN. The difference is, then, between living in Washington and living on the Isthmus?

Mr. WALLACE. Not entirely so. Of course if you want me to express my opinion on the Senatorial salary, I should say not that Mr. Stevens was getting too much, but that you were getting too little. The Senatorial salaries are fixed—

Senator MORGAN. We are getting all that we are willing to take, you know.

Mr. WALLACE. Well, I doubt that. [Laughter.]

Senator MORGAN. We prove that by the fact that we do not improve the situation in any way.

Mr. WALLACE. I know; but governmental salaries at Washington here are gauged by a condition of things that existed twenty-five years ago. The salary of civil engineers is regulated by present conditions and present supply and demand.

Senator MORGAN. The Secretary of War is a man who has done and has been compelled to do an immense amount of traveling and an immense amount of work in connection with this canal, in addition to other duties.

Mr. WALLACE. Yes, sir; he does not get enough money. But because he can not receive the compensation he deserves by law is no reason why you should trim the salary of a poor man like Mr. Stevens or anyone else that has got to live down on that Isthmus and do the work—who can readily obtain satisfactory employment in this country.

Senator MORGAN. Do you predicate that statement, in part, upon the fact that Mr. Stevens is an accomplished engineer?

Mr. WALLACE. In part on that, and in part on the fact that I think it is worth more money—that a man ought to be paid more money to perform service on the Isthmus than in the United States.

Senator MORGAN. How would it be about Mr. Shonts, who is not an engineer at all, as you testified?

Mr. WALLACE. Well, if Mr. Shonts is going to live in the States, and is not going to the Isthmus at all, and is going to confine himself to the purchase of supplies and things of that kind, I think he gets too much.

Senator MORGAN. Then it depends, again—I recall the question—on whether a man lives in the Isthmus or whether he lives here?

Mr. WALLACE. Not entirely. That is only part of it. I can speak confidently of what I think Mr. Stevens is worth, but I could not speak confidently of what I thought Mr. Shonts was worth, because in one case it might be construed as criticism and in the other not.

Senator MORGAN. I do not want to get you into that. What I want to get at is this, whether or not living and doing work on the Isthmus is under such conditions of danger from disease and such conditions in other respects as that the salary ought to be largely increased, if the man resides there?

Mr. WALLACE. Yes, sir; I should say that you ought to make a difference of probably 50 per cent.

Senator MORGAN. Fifty per cent?

Mr. WALLACE. Yes, sir; as compared with the compensation in the United States.

Senator MORGAN. Is that difference made between the pay of laborers, for instance, in the United States generally, or the pay of laborers on the canal?

Mr. WALLACE. You can not compare those two things, because the laborers on the canal are not laborers that you take in the United States. I do not think you could take labor from the United States and get it to go there for less than 50 per cent more than you pay it here.

Senator MORGAN. Would it not be 50 per cent better than the labor you employ there if you could get it?

Mr. WALLACE. Not after it had been there a year.

Senator MORGAN. For one year it would be 50 per cent better?

Mr. WALLACE. I think possibly it would. It might, the first year, be 50 per cent better.

Senator MORGAN. And after that it would decline, on account of the climate?

Mr. WALLACE. Yes, sir. The way I sized up that labor was about as follows: I found the southern negro, south of the Ohio River, when I was engaged in railroad work, about half as efficient as the best form of track labor that we had in northern Illinois and Iowa—that is, our Swedes and Germans and labor of that class.

Senator MORGAN. And you ascribe that to the difference between white labor and negro labor?

Mr. WALLACE. Partly to that, and partly to the climate. But when I got to the Isthmus I found that the negro labor there was worth just about half what our negro labor was in Mississippi and Louisiana.

Senator MORGAN. Then the negro labor in the Isthmus is of one-fourth the value of the white labor in the United States?

Mr. WALLACE. Of high-class railroad white labor throughout the Northern States.

Senator MORGAN. Yes—one-fourth?

Mr. WALLACE. Yes, sir. Now, I think that possibly can be partly corrected, because the labor on the canal has been brought in from the islands where these men are not regularly employed, and they only have to work now and then in order to make a bare living. After that labor is disciplined and trained by proper foremen, I have not any doubt that it will be possible to very materially increase its efficiency. It may be possible to get it up to somewhere near that of the Louisiana negro; but that is a question.

Senator KITTREDGE. Does the statement you make, applicable to the wages of the laboring man, extend to the classes between the laboring man and the officials?

Mr. WALLACE. Yes; I would apply it to——

Senator KITTREDGE. To all employees?

Mr. WALLACE. To almost all employees, mechanics, etc.; but the thing that will regulate that mechanical laborer is this: You can make a rule of this kind apply to your civil engineers and your clerical men and men of that class; but when it gets down to your mechanics, like your steam-shovel men, your locomotive engineers, your machinists and blacksmiths and boiler makers and molders and carpenters and that class of men, you have got to change their wages from time to time to meet the conditions in the United States and the law of supply and demand. Just at present you would probably have to pay all the way from about 50 per cent more to that class of labor. I first tried to get skilled labor on the basis of an increase of 25 per cent over the United States prices, and I was not able to get a solitary steam-shovel man to go down there on that basis; and we finally made an adjustment on a basis of about, I should judge, 40 per cent in advance of the United States wages.

The CHAIRMAN. Can you get the kind of men you want at an advance of 40 per cent?

Mr. WALLACE. I say, I think 50 per cent will be about what will have to be paid. I said that in one instance we got it at about 40. That is approximately what it figured.

Senator KITTREDGE. When did you take charge of the Panama Railway Company?

Mr. WALLACE. I took it under protest some time in March, for a few weeks.

Senator MORGAN. Of what year?

Mr. WALLACE. Of 1905; but after I came to the States in April I was elected vice-president and general manager of the Panama Railroad and Steamship Line, with charge of the steamships at the Colon end and the railroad on the Isthmus.

Senator KITTREDGE. And you exercised the duties of that position?

Mr. WALLACE. Yes, sir.

Senator KITTREDGE. For what length of time?

Mr. WALLACE. For, say, April, May, and June; but I was actually on the Isthmus for only about three weeks of that time, I think.

Senator KITTREDGE. And when was that?

Mr. WALLACE. That was in the latter part of May and the first of June.

Senator KITTREDGE. You state that you took charge of it under protest in March.

Mr. WALLACE. Yes.

Senator KITTREDGE. And exercised the duties until the 1st of April?

Mr. WALLACE. Well, that was as I explained to you yesterday. It was because there was an attempt made to have me accept the position of general superintendent, making me subordinate to the vice-president in New York.

Senator KITTREDGE. I understand.

Mr. WALLACE. Which, of course, was another source of friction. I did not want a divided responsibility. I would have had to go to that vice-president for all my instructions; he had never been south of Sandy Hook, and I did not think it was a proper arrangement; that was all. But I performed the duties down there for a few weeks, with the understanding that when the annual election came off I would be given a proper position of authority.



Senator KITTREDGE. That was on a temporary basis?

Mr. WALLACE. Yes, sir.

Senator KITTREDGE. Please give us your views as to the relation of this railway company to the construction or canal work.

Mr. WALLACE. The object of the Panama Canal, as I take it, is to expedite traffic and commerce. That being the case, it seems to me that you should utilize the Panama Railroad to the fullest possible extent, and that the operation of the railroad should not be interfered with on account of the canal construction. While it is true that the Panama Railroad must necessarily be a very potent factor in the construction of the canal, as the object is facilitating commerce, that work should be done so that there should be no interruption of traffic by way of the Panama Railroad.

That is what we do every day in our modern railroads. If we put in a new bridge or cut down a grade or anything of that sort we never think of throwing the railroad out of service. A management would consider itself very negligent if it should stop traffic to double track a railroad, to build a new bridge, or anything of that sort. We always have to make that work subordinate to the central idea, which is that the traffic of the railroad should never stop or never be delayed.

Senator KITTREDGE. In speaking of business transacted on your railroad, do you refer to commercial business as well as the transportation of canal materials and supplies?

Mr. WALLACE. Yes, sir; yes, sir. That is, it seems to me that while the canal work should not be neglected, of course, the main point to keep in view is that the Panama Railroad must be maintained as a link in the world's commerce. If that is not true, we can not logically build any canal, because what we are building the canal for is to remove a restriction on the commerce of the world that would naturally flow through that gateway.

Senator KITTREDGE. Have you any suggestions to make upon the subject of rates that should be charged on that railway as the connecting link you have suggested?

Mr. WALLACE. I have repeatedly recommended, and my correspondence will bear me out, that the Panama Railroad should be operated entirely independently of the steamship line; and I would particularly call your attention to information which I gave Mr. Bristow, a special commissioner to investigate the Panama Railroad by the instructions of the Secretary of War, and which contains a great deal of valuable matter on the road, but which has never attracted very much attention. But my original recommendation was to operate the Panama Railroad entirely separate from the steamship line, to segregate it absolutely and treat it as a transfer company.

Senator KITTREDGE. Why would you do that?

Mr. WALLACE. Because its functions are of that nature, if you will let me continue.

Senator KITTREDGE. Yes; certainly.

Mr. WALLACE. That is, my recommendation was to treat it as a transfer company to take freight from one dock on one ocean and deliver it to the other dock on the other ocean for a flat rate of about \$2.50 a ton, without any regard to classification. After I got further along into the railroad accounts I found that that rate would be too

high instead of too low. I was criticized, or, rather, the answer that was made to me when I raised that point was that if we made the rate as low as \$2.50 a ton it would disturb through transcontinental rates. My reply to that was that if there was any fear of our disturbing through transcontinental rates, it seemed to me we had better not build the canal; but if the object in building the canal was to reduce the rates of freight through the Isthmus, it was our duty to reduce those rates to such a point as soon as we could, in order that we might anticipate in some small measure the benefits which we would ultimately receive from the construction of the Panama Canal.

Senator MORGAN. What do you mean, Mr. Wallace, by "through transcontinental rates"—the rates charged by railroads?

Mr. WALLACE. Yes, sir; yes, sir. I found when I went into this, after I became an officer of the Panama Railroad, that the amount of money which the Panama Railroad itself (not the steamship line, but the railroad) got out of the through rate from New York to San Francisco, due to the handling of that freight across the Isthmus of Panama, was a trifle less than \$2 a ton.

Senator ANKENY. Regardless of classification?

Mr. WALLACE. Yes. That was the average, you understand. Now, if we put the rate across the Isthmus at \$2 a ton—that is, from ship's side to ship's side, or from dock to dock—we would practically maintain the same relation that now exists between the rates across the Isthmus and the through transcontinental rates, which, if you will investigate, I think you will find are about 30 per cent or 35 per cent less than the present rail rates on the same class of goods from New York to San Francisco, and vice versa; that is, they are less now. So that to this committee my recommendation would be that that rate be made \$2 a ton—that is, from dock to dock—and that that stuff be handled across there without any regard to classification.

When you do that you will be in this position: The rate for ships passing through the Suez Canal, if I recollect right, is about \$1.70 per ton of gross tonnage measurement.

Senator ANKENY. Long tons?

Mr. WALLACE. Yes, I presume so; so that \$2 a ton for net tonnage is practically the Suez rate. In other words, if you opened your canal to-morrow the probabilities are that your rate on tonnage through the canal would not exceed \$2 a ton.

It seems to me that if we are justified in spending two or three hundred millions of dollars to enable tonnage to be carried across that Isthmus for \$2 a ton, or \$1.50 or \$1.70 a ton, without regard to classification, we are not only justified logically, but it is our duty, to do that over the Panama Railroad for the same figure to-day, when it is easily within the range of practicability and is practically the same rate that we have been exacting under the contract which existed between the Panama Railroad and the Pacific Mail Steamship Line prior to the abrogation of the recent contract.

Senator ANKENY. While you are on that subject, Mr. Wallace, is that road adequate for doing quick work with both commercial freight, we will call it—through freight from New York to San Francisco, for example—and also doing good work for the Commission who are building the canal?

Mr. WALLACE. At present?

Senator ANKENY. Yes.

Mr. WALLACE. No, sir.

Senator ANKENY. What is the remedy for that? You say both ought to be treated alike?

Mr. WALLACE. Yes, sir.

Senator ANKENY. Either one or the other must suffer. Now, who is to suffer?

Mr. WALLACE. Neither should suffer, because the facilities should be provided for that road.

Senator ANKENY. Would you advocate the double tracking of the road?

Mr. WALLACE. Last winter, as soon as I had any opportunity to be heard on the Panama Railroad, I recommended its double tracking. I recommended that the road be provided with sufficient first-class modern equipment, in order that its business might be properly and economically handled.

Senator ANKENY. You think that would be the logical thing to do?

Mr. WALLACE. I most assuredly do. If it would cost \$5,000,000 to put that road in proper condition, with additional tracks, wharves, equipments, and everything of that sort, that is only 2½ per cent on the smallest amount of money that you will ever be called upon to appropriate to build the cheapest canal you can possibly build there. You will be compelled to do that anyway, because the condition of that road at the time the Americans took it over was such that it was not able to furnish adequate facilities for the small amount of business that existed at that time. It had been running down for twenty-five years; the equipment, the engines, and cars had been wearing out, and, in fact, the only thing that was kept up to where it should be was the track.

Senator ANKENY. You are aware, of course, Mr. Wallace, that there is a road north of that, known as the Tehuantepec Railway?

Mr. WALLACE. Yes, sir.

Senator ANKENY. That will be in operation, I understand, in June. Am I correct about that?

Mr. WALLACE. Yes, sir.

Senator ANKENY. They expect it to be in operation at that time?

Mr. WALLACE. Yes, sir.

Senator ANKENY. Will that not be a competitor for what you call the commercial freight?

Mr. WALLACE. If you do not improve the Panama Railroad and apply modern business methods to it, the Tehuantepec route will wipe the Panama Railroad off the map as a commercial factor.

Senator ANKENY. Double track and all?

Mr. WALLACE. Yes, sir; but it will not wipe it out if you double track it and put on your facilities and put the freight rate down to where it should be. But what I mean to say is this—

Senator MORGAN. You are basing your calculations, I suppose, upon the present state of commercial intercourse between the Pacific and the Atlantic. But do you not anticipate that as you increase facilities for commerce across the Isthmus, whether by canal or by railway, the commerce will increase, very much as it has done through the Sault Ste. Marie canal?

Mr. WALLACE. It certainly will; yes. But there is no trouble about any man with Mr. Stevens's capacity and knowledge of railroad work

handling twenty times the amount of the commercial tonnage across that Isthmus, with a properly equipped railroad, without any interference with or disturbance of the canal traffic.

Senator MORGAN. By double-tracking you do not mean to double-track the route all the way, do you?

Mr. WALLACE. There might be a few miles through the summit cut where it would not be necessary to do it.

Senator MORGAN. Mr. Stevens explained that to us rather particularly and showed that the double-tracking was more in the nature of a turn-out than it was of a consecutive line of road.

Mr. WALLACE. Of course that is the difference of opinion between two men as to the way that should be operated. I would operate that railroad as a switching proposition. I would double-track it from Colon to Matachin and from Pedro Miguel to La Boca, and then I would lengthen out the side tracks on the summit. But in order to remove the excavation from the Culebra cut—in the plan that I had, applying it in my mind before I left there—I provided for four double-track railroads.

Senator ANKENY. At that point?

Mr. WALLACE. Using one on each side of the canal and two on each side of the summit. That is, the Panama Railroad would be the base of one of those double-track systems westward and one of those double-track systems eastward.

Senator ANKENY. How long would those be, sir?

Mr. WALLACE. The Panama Railroad double-track line would run to the sea, and over that route would have to be carried the material that would go down near the sea for final wasting.

Senator MORGAN. It would be impossible, though, to maintain communication between La Boca and Colon on the double-track system without crossing the Chagres River, would it not?

Mr. WALLACE. Yes; it crosses the Chagres River once and it crosses the canal twice, but by the time you get your canal far enough along so that you have to take up your railroad the new railroad tracks can be laid entirely on one side of the canal.

Senator MORGAN. Which side?

Mr. WALLACE. They would be on the east side—that is, the permanent railroad.

Senator MORGAN. On the east side?

Mr. WALLACE. Yes. My idea was that you would start in, and through the low country you would put up a bridge, bank, or levee immediately adjoining the canal on each side of it. When you got into the Culebra cut you would construct a berm about 50 feet wide, about 10 feet above the level of the sea or the level of the canal. On that berm, on the east side, which would not require any bridges except where you wanted to let water into the canal occasionally, I would run a double-track railroad, which you will need to operate even after the canal is constructed.

Senator MORGAN. And that would be the commercial road?

Mr. WALLACE. That would be the commercial road.

Senator MORGAN. If you laid a double-track railroad on the berm on the other side, that would be for the convenience of the excavating work?

Mr. WALLACE. Simply for convenience in the handling of the excavated material.

Senator MORGAN. That would be your plan?

Mr. WALLACE. As a service line.

Senator MORGAN. Is it possible at this time, in your judgment, to lay down the commercial tracks of the Panama Railway through the Culebra cut upon one of the benches that are being left there for the protection of the canal against the sliding of earth?

Mr. WALLACE. No; not at this time. You might do that in two or three years from now; but there is a first-class roadbed around Culebra cut, and that should be used as the main line of the Panama Railroad for several years yet, until the cut is deepened and widened, and you can provide for the road running through on the east side of the cut on one of the benches that will be subsequently constructed.

The point I would like to make here, Mr. Chairman, and which I do not like to be led away from too much, is that by the expenditure of a few million dollars, part of which has already been contracted for and arranged for and which has to be necessarily expended in any event, you can provide the means to accomplish within one year from this time at least 50, if not 60, per cent of the benefit you will get out of the canal when it is done as far as providing a cheap route for commerce is concerned, and we will get the benefit that will accrue to our nation from a uniform rate there in advance of the construction of the canal. That is the point I would like to emphasize, and that it is the logical thing to do—that is, there is not any logical reason why it should not be done.

Senator ANKENY. That is the identical reason these question are asked, as I understand it.

Mr. WALLACE. Yes, sir. Now, I would like to tell you something else. In the years that are gone by the Panama Railroad has carried through freight from San Francisco to New York across that Isthmus at less than their books showed it cost them to handle it, dividing all their tonnage into all their outlay, and in order to make up for that loss they taxed the coffee of Costa Rica, which paid a rate of \$6 a ton across that Isthmus, and they had a different rate of freight on every product that crossed that Isthmus and from every port from which that freight was shipped. That is, for instance, a ton of coffee was charged a certain rate per ton, not because it cost so much to handle it or because it was coffee, but because it came from a port that could not get its products handled in any other way, or it came from a port that could have its products handled either around Cape Horn or across the continent by rail.

Senator ANKENY. In other words, they made the rate all the traffic would bear?

Mr. WALLACE. Yes, sir.

Senator ANKENY. That is part of your religion as a railroad man, is it not?

Mr. WALLACE. Now, I hope you will pardon me if I suggest that before you gentlemen interfere with the complicated commercial and rate situation in the United States you try your hand on the Panama Railroad, which, in relation to the commerce of the United States, compares almost as a grain of sand with the sands of the seashore; and if you can not run the Panama Railroad and make rates for it that are satisfactory and can not operate it on proper conditions, you had better let the railroad systems of the United States alone.

The CHAIRMAN. I take it, then, that you are not for a rate bill.  
[Laughter.]

Senator ANKENY. You are getting on thin ice.

Senator MORGAN. You think rate legislation had better commence at Panama?

Mr. WALLACE. Yes; I think you had better experiment with that. I am not against rate legislation, because in a proper way I think that it is all right; but rate legislation and rate making are, of course, two different things.

Senator KITTREDGE. Do you propose to classify the freight, or would you suggest that the freight be classified across the Isthmus?

Mr. WALLACE. No, sir. Now, the operating of the Panama Railroad on the Isthmus and cutting off the steamship line from it will save you in round numbers from \$175,000 to \$200,000 a year on the present expense of operating the Panama Railroad.

Senator KITTREDGE. In what way?

Mr. WALLACE. Why, I presume there are a thousand classifications of articles across that Isthmus. That stuff has to be billed, and there are through rates named, and a division of rates has to be figured up; and the amount of clerical work and official supervision that goes with that, due to the classification, creates a necessity for a very large official staff and force. That could be almost wiped out if, when a steamship loaded you a thousand tons of freight at Colon that you had to carry to La Boca, all you had to do was to collect \$2 a ton on that stuff from the steamship that brought it to you, and see that it was properly weighed and sent across the Isthmus.

Senator ANKENY. Had you considered well, when you said that there should be no classification, that iron and coal and whatever you might ship over there should go at \$2 a ton?

Mr. WALLACE. Yes, sir.

Senator ANKENY. That is the point.

Mr. WALLACE. The reason of that is this: My thought was that if, ten years from now, after the expenditure of two or three hundreds of millions of dollars we were striving to create a situation which would enable us to charge \$2 a ton on our traffic through that Isthmus without regard to classification, if we could do that by the railroad without undue loss and do it now, it is a logical thing to do, because the whole logic of the construction of the Panama Canal is leading up to an ability to send freight through that Isthmus without classification on a basis of \$2 a ton or less.

Senator ANKENY. Then let us follow it to a result: Do you think we will have a property in that road after our canal is in operation?

Mr. WALLACE. You certainly will; yes.

Senator ANKENY. It will not be destroyed entirely?

Mr. WALLACE. No, sir.

Senator ANKENY. Tehuantepec or anything else to the contrary notwithstanding?

Mr. WALLACE. No, sir. Now, I can tell you why.

Senator MORGAN. You do not understand that the Government of Panama concedes that proposition, do you?

Mr. WALLACE. I do not see how they can help that, as long as you maintain your railroad organization.

Senator MORGAN. I suppose that as long as they insist upon their

right to hold elections in the Zone and to regulate postal rates they may conclude that they have the same right to regulate the matter that we have.

Mr. WALLACE. They will probably establish an interstate commerce commission down there, too, and regulate rates on the road.

There is a reason for that, and it is this: The rates through all canals—that is, generally—are on gross tonnage. Now, either Colon or Panama has got to be a distributing point for vessels up and down the coast. It will not be economical for a vessel to leave New York and go to the Panama Canal and go down that west coast to Guayaquil and Valparaiso and distribute all that stuff down there, you understand. It will be economical for them to take a cargo to Colon, for instance, that will fill their ship to the maximum, and bring back a cargo in the reverse direction. A large part of that freight will have to be transferred into ships of smaller tonnage, in order to save these canal tolls. The result will probably be that a large part of package stuff will go across the Isthmus by rail even then, or it will be taken through the canal on lighters, very likely, in order to save this tonnage of immense steamships going through there and paying a tonnage charge back empty, or going through there only half filled, or something of that sort. You will find that the commercial world will find out all those things by practice and will adjust their business to them.

Senator ANKENY. They will take advantage of them, of course.

Mr. WALLACE. Another thing: Your passengers will want to go across, and whether you have a sea-level canal or a high-level canal you will have a surplus of electric power, so that you will have power to operate that road that probably will not cost you anything to speak of.

Again, that Isthmus will blossom like a rose when the restrictive factors that have been in existence for fifty years through the Panama Railroad are removed from it. Now, let me tell you of an incident—I do not want to vouch for its absolute correctness, because I did not look up the actual figures to justify it, but while I was there a man came to me and wanted to ship some brick from Colon to Panama. We had just obtained some new 50-ton cars, which we were just putting up, and he wanted to know if he could not get a special rate on that brick. "Well," I said, "what is the matter with the rate on brick?" He said: "Well, there used to be a brickyard here in Panama years and years ago that these railroad people wanted to encourage, and when I went to get a rate on brick I found that 50 tons of brick would cost me over \$500 for freight between Colon and Panama." I said: "Why?" "Why," he said, "they classified that as crockery uncured." [Laughter.]

Senator MORGAN. Bricks come high in Panama?

Mr. WALLACE. Yes, sir.

Senator ANKENY. Aside from that, have you earth and facilities there for burning brick?

Mr. WALLACE. The matter of fuel is the great drawback. There is plenty of earth for it.

Senator ANKENY. Suitable earth, clay, etc.?

Mr. WALLACE. Yes, sir. All these valleys are very fertile, but the local rates on the Panama Railroad were so high that nothing could be shipped out. The only thing that they encouraged shipment on

was bananas, because they came in bulk, and they got considerable revenue out of that.

The CHAIRMAN. Mr. Wallace, you believe that if that country that you pass through there on either side of the bank is cleared off and cultivated you can grow almost anything there, do you?

Mr. WALLACE. Oh, yes.

The CHAIRMAN. You believe that from actual knowledge?

Mr. WALLACE. Yes, sir.

The CHAIRMAN. From what you have seen down there?

Mr. WALLACE. Yes, sir.

Senator MORGAN. Suppose you cover it up with a lake, as is proposed by the minority of the committee?

Mr. WALLACE. Why, you can raise fish in it.

Senator KITTREDGE. Mr. Wallace, do you know whether the freight passing through the Suez Canal is classified?

Mr. WALLACE. No, sir; it is not.

Senator KITTREDGE. It is transported under the same conditions that you suggest with reference to this railway?

Mr. WALLACE. Yes, sir.

Senator ANKENY. Do you remember the Suez rate?

Mr. WALLACE. My recollection is that it is \$1.70 on a measured tonnage; I mean on the space—

Senator ANKENY. The displacement.

Senator MORGAN. The net tonnage?

Mr. WALLACE. No, sir; the measured tonnage.

There is one thing about rate classification, and that is this—I hate to go into the rate question—

Senator MORGAN. We all hate to do that. [Laughter.]

Mr. WALLACE. Rates are not based upon any scientific basis. In other words, it is not a question of what it costs to transport anything that regulates the freight rate. It is the result of a practical fight. I mean a constant argument between shippers and localities and competition between railroads, and everything of that kind. The whole idea of classification was to enable traffic men to adjust these differences—to have a deck of cards to shuffle. I mean originally there was some sense in coal being carried at a less cost than crockery. That is true on a railroad. But there is a very complex classification that was made, so that if a rate was reduced on one article it would not take effect on other articles. There might be a reason why the rate on coal should be very low, or the railroad might even have to haul it at a rate that it could not afford to haul any large amount of its business for. So there is a separation between coal and lumber, and then between live stock and packing-house products, and between furniture that is liable to break and only shipped occasionally and logs from the forest to a sawmill.

Senator MORGAN. Speaking about coal, how is the coal supply of the Isthmus for all purposes obtained there; by sailing ships or by steamers?

Mr. WALLACE. By steamers. Eventually some of it may be brought down there by sailing vessels.

Senator MORGAN. Yes.

Mr. WALLACE. But now practically the sole supply of coal on the Isthmus is furnished by the Panama Railroad from Norfolk, Va., and is Pocahontas coal.



Senator MORGAN. Yes.

Mr. WALLACE. And up to the present they have had an absolute monopoly of that business, because they own all the wharfage and dockage and ground, and independent lines could not bring coal in there.

Senator ANKENY. At \$7 a ton?

Mr. WALLACE. Seven dollars a ton is about the rate.

Senator MORGAN. Yes; it is that monopoly that I want to make an inquiry about. The coal is brought there by the railway company in those steamers that they have leased from the Isthmian Canal, if I understand it?

Mr. WALLACE. Yes, sir; sometimes the Panama Railroad would make a special contract with a tramp steamer to take a cargo of coal down there for them.

Senator MORGAN. That gives the railroad company and its stockholders and managers a monopoly, as you call it, of the coal supply on the Isthmus?

Mr. WALLACE. Yes, sir.

Senator MORGAN. That coal costs about \$7.50?

Mr. WALLACE. It does now; but coal, I think, is laid down at Colon for about \$5 or \$5.50. It is delivered to the Pacific Mail Steamship Line at La Boca at from \$7 to \$7.50.

Senator MORGAN. If there was a free market for coal, not monopolized by the railroad company, could not a man or a company make a great deal of money by shipping coal from New Orleans or from Mobile in sailing ships to that market?

Mr. WALLACE. Yes; I should think so. It would depend on the rail rate from the mines to the Gulf.

Senator MORGAN. Take the best steaming coal in the United States; according to the naval reports that can be delivered at Mobile from the mines at \$1.25 a ton.

Mr. WALLACE. Then it should be delivered at Colon for less than \$3 a ton.

Senator KITTREDGE. If the Panama Railroad is separated from the steamship company, in what manner ought the latter to be managed and operated?

Mr. WALLACE. My view has always been that the United States Government ought not to have anything to do with the steamship business.

Senator MORGAN. This monopoly that you suggest certainly proves it.

Mr. WALLACE. The two latest steamers I have not seen. The steamers that were owned by that line when I was connected with it were too small. They are very uneconomical boats to operate, and I have always believed in my own mind that if the Panama Railroad accounts were kept the way they should be they would show that those steamships, prior to the American control of the canal, were operated at a loss. The boats are small and very uneconomical, and the only theory upon which the old Commission retained them was that if they took them off there might be an agreement among shipping interests to put up the rates so that it would increase the cost of the canal.

Senator MORGAN. You are speaking of the two ships that are being used now?

Mr. WALLACE. Yes.

Senator MORGAN. As being small and insufficient?

Mr. WALLACE. Yes. I am not speaking of the two that were bought since I left there, but the *Advance* and the *Allianza* and the *Finance* and the *Orizaba*.

Senator MORGAN. You have four there?

Mr. WALLACE. They have six now, including the *Mexico* and the *Havana*. I do not think that theory I have just mentioned would cut any figure, for this reason, that you would get the competition of the ocean carriers of the world, and I can not see why you should ever have any trouble, because if you had any specially large shipment to make you could always charter vessels. Again, our bids are all based, or were in my time, on the delivery of material at Colon; and if any shipper felt that he could get the stuff there in any cheaper way he had an opportunity to do it.

Several times in my experience we found that the rates enforced by the Panama Steamship Line, our own line, were causing us to pay more freight than we ought to have paid, because those rates set the price for the other lines, and our own line only handles a small amount of the freight that goes down there. For instance, if the amount of freight that went to the Isthmus from the States was represented by four, and our own lines carried one-fourth of that, and we lost a dollar a ton on every ton we carried by keeping the price down, we would practically be ahead \$2 a ton on all the freight that went down there, if that low rate kept the other rate down; but the line has not been operated in that way. The line, as far as my knowledge has gone, at least up to the time I left the Isthmus, was operated more to maintain rates than in any other way, and we were paying higher rates to other carriers on account of that.

Senator MORGAN. During what length of time of your stay on the Isthmus did you have charge of the railroad business?

Mr. WALLACE. Well, it was about three or four weeks, in March, and then from the 1st of April until the 28th of June, and during the last trip, the last time I was down there.

Senator MORGAN. During that period you had opportunity to study the situation?

Mr. WALLACE. Yes, sir.

Senator MORGAN. And did study it?

Mr. WALLACE. And did study it; yes, sir. Of course I had given it a good deal of study before. It was a very simple proposition. I had divisions under my charge on the Illinois Central Railroad that handled more freight in a single day than would pass over that line in a month—simply one isolated division of that road. The freight proposition down there is a very simple one.

There is one point I would like to touch upon, and that is this: I noted in reading the testimony of the general agent of the Pacific Mail Company that he spoke about the difficulty of getting his freight from the railroad.

Senator MORGAN. Mr. Schwerin, you speak of?

Mr. WALLACE. Yes, sir.

Senator ANKENY. That was in connection with the congestion?

Mr. WALLACE. Yes, sir. Would you like to have me go ahead with that?

The CHAIRMAN. Yes.

Mr. WALLACE. It was this: There are no wharf facilities at La

Boca to amount to anything—that is, there were not before I went down there. There was a very expensive wharf built, that was so narrow that you could not leave any freight stored on it. Everything had to go into the cars from the ships and back again. It was only about 26 feet wide, just wide enough to truck across. Cars were put down on one side and the boats came up on the other, and in order to accommodate the views of the steamship line on the west coast, and to get the stuff over to them in lots, the way Mr. Schwerin was speaking about the other day, it was loaded in cars and sorted out on the Colon side. In order to keep it separate some cars would go over there with only 5 tons of freight in them. Another car might have only 10, and another 6 or 8. They separated it at the Colon side. It was carried across the Isthmus and stored in the yards at Panama, in the cars. At one time I have had about 400 cars of freight in Panama waiting for the steamship to come in and to take it away, when I did not have cars on that railroad to handle the stuff for the canal or the local business.

Senator MORGAN. Having no other place to store it except on the cars?

Mr. WALLACE. Yes, sir. That was necessary from a steamship standpoint.

The trouble about that was this: It cut down the amount of tonnage that could be handled by an engine, because the trains were not fully loaded—that is, the cars did not have their full tonnage in them, quite frequently, and the trains of the Panama Railroad, due to the way freight was handled and due to their light equipment, only averaged 171 tons per train; and in order to get that average up to 171 tons per train, they double-headed, and had two engines on most of the trains that ran over the Culebra Hill.

What I think should be done is this: I think that additional dock facilities and warehouses should be provided at Panama, so that all the freight that comes into Colon can be loaded into cars up to the full capacity of those cars, and that freight transported across the Isthmus and then sorted out in a large freight house which can be constructed parallel to the wharf, between the cars and the wharf. Then, when the Panama steamships come in, there is the freight for them, and all they have to do is to load it. Then your cars would be relieved, and you could handle your freight much more economically.

Senator MORGAN. Concerning that double-heading of engines on the Culebra Hill. Do you propose to continue that, to let that stay there, or to cut it out?

Mr. WALLACE. No, sir. As soon as I got into the Panama Railroad, I asked authority to buy additional equipment, and that equipment was ordered. That consisted of large-tonnage cars and heavy engines. We purchased 24 engines, which had not been delivered at the time I left the Isthmus, that were able to handle 500 net tons over Culebra Hill without double-heading.

Senator MORGAN. It was Culebra Hill that gave rise to that requisition?

Mr. WALLACE. Yes, sir. Well, it was the general situation down there.

Senator MORGAN. That is the particular reason for it? That was unavoidable?

Mr. WALLACE. Yes, sir.

Senator MORGAN. You had to have heavy engines to get over there, or else you had to double them up?

Mr. WALLACE. Yes, sir.

The CHAIRMAN. Mr. Wallace, while you were there, were the present money conditions in operation?

Mr. WALLACE. I do not believe they have been changed since I left there.

The CHAIRMAN. How were those conditions developed? Were they brought about through the railroad, or how was the arrangement made? Were you a party to it?

Mr. WALLACE. No, sir. Of course, I was familiar with it. The first situation, when I went down there, was this: Our disbursing officer had to pay our natives in silver, and that silver had to be bought in the open market.

The CHAIRMAN. Where was it bought—there?

Mr. WALLACE. Yes, sir.

The CHAIRMAN. Right in Panama?

Mr. WALLACE. Right in Panama. The banker, *per se*, did not accumulate that silver, but Brandon Brothers, and I think Ehrmann, were both what we call bankers and jobbers.

The CHAIRMAN. They have a store?

Mr. WALLACE. Yes, sir; and they would sell their goods all over, up and down the coast, and in Panama, and the currency would come into their stores. They were able to adjust their business so that they could accumulate silver, and the bankers pure and simple, like the International Banking Company, had no way in which they could get silver unless they were to go and buy it.

Senator ANKENY. That is, coin silver?

Mr. WALLACE. Yes, sir. The result was that these combined bankers and merchants were practically able to regulate the price of exchange between the United States and the country. I was in some of the conferences where it was discussed. This bargain was made so as to enable the disbursing officer of the canal and the disbursing officer of the Panama Railroad always to be able to get their silver without having to pay a premium above the parity of 2 to 1 which was established or above that standard.

The CHAIRMAN. Then the disbursing officer, if he wanted \$10,000 or \$20,000 in silver, gave his draft on the subtreasurer at New York to these people and they furnished the silver?

Mr. WALLACE. Yes, sir.

Senator MORGAN. But they did have to pay a premium of one-quarter or one-half of 1 per cent?

Mr. WALLACE. I do not recollect. I think there was some trivial charge.

Senator MORGAN. That was under the *modus vivendi*?

Mr. WALLACE. Yes, sir.

The CHAIRMAN. I think, unless Senator Morgan has something to ask you, that we can excuse you now, Mr. Wallace, and when we want you again we will send for you at the proper time. I will give you proper notice.

Senator ANKENY. May I ask just one more question?

The CHAIRMAN. Certainly.

Senator ANKENY. What is the necessity there for two kinds of

money? You say you had to have it. What did you mean by saying that you had to procure silver to pay your black people?

Mr. WALLACE. They had to have the actual silver. We had no means of getting the actual silver except by buying it.

Senator MORGAN. You had to have it, just as you do in Washington. You could not do your marketing, or anything of that kind, without it?

Mr. WALLACE. They would not take United States money—paper, or anything like that.

Senator MORGAN. They could not use it.

Mr. WALLACE. No, sir; they wanted so many pieces of silver of a certain size for their work. They did not want something that said it was worth so much; they wanted to see the actual silver.

The CHAIRMAN. We will have no meeting to-morrow, but we will have a meeting Friday at 11 o'clock, and I shall ask Governor Ma-  
goon to come before the committee at that time.

Mr. Wallace, we are greatly obliged to you, and we shall have to ask you to come back again later.

(Thereupon, at 3.45 o'clock p. m., the committee adjourned until Friday, February 9, 1906, at 11 o'clock a. m.)

# ISTHMIAN CANAL.

---

COMMITTEE ON INTEROCEANIC CANALS,  
UNITED STATES SENATE,  
*Washington, D. C., Friday, February 9, 1906.*

The committee met at 11 o'clock a. m.

Present: Senators Millard (chairman), Kittredge, Hopkins, Knox, Ankeny, Morgan, Taliaferro, and Simmons.

## STATEMENT OF CHARLES E. MAGOON, ESQ., GOVERNOR OF THE PANAMA CANAL ZONE.

The CHAIRMAN. Governor, will you please state your name?

Mr. MAGOON. Charles E. Magoon.

The CHAIRMAN. And where were you raised?

Mr. MAGOON. I was raised in Minnesota and Nebraska.

The CHAIRMAN. And where were you educated?

Mr. MAGOON. In Nebraska for a collegiate training, and in the public schools of Minnesota.

The CHAIRMAN. At the State University of Nebraska?

Mr. MAGOON. At the State University of Nebraska.

The CHAIRMAN. And I believe you are a lawyer by profession?

Mr. MAGOON. Yes, sir.

The CHAIRMAN. When and where were you admitted to the bar?

Mr. MAGOON. I was admitted to the bar in 1884, in Lincoln, Nebr.; in the Federal courts at Omaha, and later in the State supreme court; and I was admitted to the Supreme Court of the United States some five years thereafter.

The CHAIRMAN. With whom were you associated at Lincoln in the practice of law?

Mr. MAGOON. I studied law with the firm of Mason & Whedon. I practiced law subsequently with Mr. Charles O. Whedon, the junior member of that firm, after the death of Judge Mason.

The CHAIRMAN. Mr. Whedon is a lawyer of reputation in the State of Nebraska, I think?

Mr. MAGOON. Mr. Whedon is one of the leaders of the Nebraska bar, and, in my estimate, is one of the best lawyers in the West—a man of high character and great attainment and broad experience.

The CHAIRMAN. He is still in the practice of law there now?

Mr. MAGOON. He is; yes, sir.

The CHAIRMAN. When did you leave Nebraska to come to Washington?

Mr. MAGOON. I left there in January, 1899.

The CHAIRMAN. And in what way were you employed here?

Mr. MAGOON. I was the law officer for what was then the Division of Insular Affairs, subsequently made the Bureau of Insular Affairs.

The CHAIRMAN. And you are now at Panama?

Mr. MAGOON. Yes, sir.

The CHAIRMAN. In charge of the—

Mr. MAGOON. I might say, Senator, if you will permit me to continue in that line, that in 1904 I became the general counsel for the Isthmian Canal Commission, and in April, 1905, was appointed a member of the Commission and governor of the Canal Zone.

The CHAIRMAN. You are still a member of the Commission?

Mr. MAGOON. I am; yes, sir.

Senator MORGAN. When did you say, Governor, that you were appointed general counsel—in what year?

Mr. MAGOON. In 1904.

The CHAIRMAN. And on what date, Governor, did you say you were appointed governor of the Canal Zone?

Mr. MAGOON. The 3d of April, 1905.

The CHAIRMAN. The 3d of April, last?

Mr. MAGOON. Yes, sir.

The CHAIRMAN. Whom did you succeed as governor?

Mr. MAGOON. Maj. Gen. George W. Davis, U. S. A.

The CHAIRMAN. And have you any other duties there other than as governor and a member of the Commission?

Mr. MAGOON. I am a member of the Commission and governor, and I am also the American minister to the Republic of Panama.

The CHAIRMAN. Now, Governor, I think the committee would like a statement from you as to the conditions that existed at the time of your arrival in Panama, and to have you give us a history of affairs up to the present time as freely as you can. If you will do that in a general way to the committee, we will be obliged. It is a pretty large task to assign to you, but I think you can give us the information better in your own way than if we ask you questions, at least for a time.

Mr. MAGOON. Do you refer to the work of the department of which I am the head?

The CHAIRMAN. Yes.

Mr. MAGOON. The Executive order of April 1, 1905, divided the work of the Commission into three departments, the administrative department having charge of the office at Washington and of the work of administration in Washington, fiscal affairs, auditing, disbursements, purchases, and matters of that kind; the department of engineering and construction, which had to deal with the work of construction on the Isthmus, and the department of government and sanitation, which had to do with the exercise of the powers on the Isthmus derived from the treaty with Panama. That is, the powers in performing governmental functions.

I arrived on the Isthmus on the 24th of May, and in the department to which I was assigned I found an excellent organization.

Senator MORGAN. The 24th of May of what year?

Mr. MAGOON. 1905, sir. The government of the Canal Zone had been organized by an act of the Isthmian Canal Commission at a time when, by virtue of an act of Congress, they exercised legislative power. The personnel of the government had not been filled com-

pletely. Those in charge of the several bureaus and departments performing the work required of the government were very much overburdened. There had existed a feeling of unrest and insecurity resulting from the understood policy that changes would be made. Bills had been pending in Congress looking to a reorganization of and possibly doing away with the Commission, and the President and Secretary of War had asked for a reorganization. Therefore nothing much was done toward increasing the personnel or extending the work of the government. I mean to say, they sought to preserve the status quo and to perform the functions as they might be required.

Such of the members of the government personnel as were there were found to be most excellent men, and had been discharging their duties in such a manner as to commend itself to the fair judgment of any man. No removals were made by the new governor at that time or any since, upon his own motion. The sanitary force was especially well organized, and was doing, to the limit of the facilities which it had in hand, a remarkable work.

The CHAIRMAN. The same officers are in charge now as were in charge then?

Mr. MAGOON. No; there have been some changes in that department. The Government and the enterprise were very fortunate in being able to command the services of Colonel Gorgas, Major Carter, Major Le Garde, Surgeon Spratlin, Captain Le Prince, Captain Perry, and the other officers of the Army, Navy, and Marine Corps, who had participated in the sanitation of the Island of Cuba. They were there, and with that ripe experience were accomplishing all that human endeavor could accomplish along the line in which they were engaged.

However, a yellow-fever epidemic was imminent. In the month of May we had, I think, 33 cases. In the month of June we had 62 cases, showing that the disease, in spite of the combat which had been made against it, was gaining.

Senator KNOX. What year are you speaking of, Governor?

Mr. MAGOON. I am speaking of 1905, sir; in response to the chairman's request I am detailing conditions as they were found.

Senator KNOX. Yes; I understand the general plan, and simply wanted to know the year of that fever.

The CHAIRMAN. Governor, those cases were all with white people, were they?

Mr. MAGOON. I think you might say all at that time, although there have been two or three cases of negroes and one case of a native developing the fever. The negroes from the interior of Jamaica and other of the islands of the West Indies are not absolutely immune from that disease.

There was, of course, a demoralization among the nonimmunes among our employees, resulting from the ravages of the disease. Shortly before our arrival two of the principal officers of the canal organization had died from the disease, and that had, of course, augmented the panic. Obviously the first imperative work was to arrest this disease if possible.

I called upon Colonel Gorgas for a conference, and we had many. I accepted, of course, the mosquito doctrine, and the question came up as to whether all was being done that could be done under that



theory. Colonel Gorgas said that there had not been; that the sanitarians had been hampered in various ways, and that by extending and expanding the operations better results could be effected.

Senator MORGAN. Governor, let me inquire whether, in accepting the mosquito doctrine, as you call it, down there, you also accepted the doctrine that the mosquitoes were the agents through which the malarial disease, chills and fever, and all that, were communicated?

Mr. MAGOON. Yes, sir; the *Anopheles* mosquito; the *Stegomyia* is the yellow-fever mosquito.

Senator MORGAN. So that if there were no mosquitoes down there there would be no sickness?

Mr. MAGOON. Well, I would not be willing to advance that assertion, because I am not a medical man.

Senator MORGAN. But you accepted the doctrine, and acted upon it, that all the diseases down there were communicated from one person to another through the assistance of the mosquitoes?

Mr. MAGOON. Not exactly. I am speaking of the yellow-fever epidemic, with which we were called upon first to deal.

Senator MORGAN. I know; but I want to call your attention to the epidemic and to the fixed condition down there of malarial sickness.

Mr. MAGOON. We are fighting malaria down there in accordance with the doctrine that malaria is communicated by the *Anopheles* mosquito; but we do not stop at that. In order to increase the power of resistance to disease of our employees and of the people on the Zone we improve in every way we can the conditions under which and in which they live. That is, we increase the amount of cubic space of their sleeping apartments, of their households; see to it that the buildings are elevated, so that light and air can get under them to dry them out. We promote in every way we can personal cleanliness. We are not trying to establish any doctrine; we are trying not to omit to do anything which will promote the public health.

Senator MORGAN. You do not assume, then, that if you killed all the mosquitoes at Panama that would stop the malaria or the yellow fever, do you?

Mr. MAGOON. No, sir; but we are trying to kill all of them, nevertheless, as one of the essential things.

Senator MORGAN. And trying to keep those people clean, too?

Mr. MAGOON. Yes, sir; and trying to give them good drinking water, so that no water-borne diseases may be communicated; and we are cleaning them up so that if there are such things as filth-communited diseases we will get rid of them, too.

Senator MORGAN. Between cleansing those people and making them keep clean, killing the mosquitoes, and preventing their reproduction, the Government has a pretty hard job, has it not?

Mr. MAGOON. Yes, sir; it is a very difficult thing to render any locality in the Tropics so sanitary that men from the temperate zone can live there.

Senator MORGAN. And quite as difficult to keep it in action and effective operation?

Mr. MAGOON. It is difficult, but not as difficult as to eradicate the diseases in the first instance.

The CHAIRMAN. Proceed, Governor.

Senator KITTREDGE. What did Colonel Gorgas tell you regarding the conditions in his department?

Mr. MACOON. That his organization was excellent. A little later he asked for two changes in the superintendents of hospitals at Ancon and at Colon. Although with respect to both of the men he spoke and wrote very highly as to their accomplishments and as to their ability in every way, he preferred other men of slightly different experience.

Senator KITTREDGE. I had not in mind the question of who were to do the work, but what Colonel Gorgas told you regarding the difficulties, if any, he had had prior to the time you arrived there.

Mr. MACOON. He said that the sanitary department had been hampered in the matter of delay in furnishing supplies, in the number of men which had been put at its disposal, and in the way of a general lack of facilities to do all that was required. I think a moment later, Mr. Senator, I will give you an illustration of what I mean.

Having had several conferences with Colonel Gorgas on these matters, I gave him personal assurance, and subsequently reduced it to writing, that to the extent of the Commission's ability he would have all of the means and men and money required to extirpate the diseases, more especially the yellow fever, and we then immediately proceeded to enforce ways and means.

The campaign is, first, to prevent the propagation of *Stegomyia* mosquitoes, and of course that includes all mosquitoes. I mean if you prevent the propagation of *Stegomyia*, you do of *Anopheles* and *Culex* also. Next, to prevent those that are propagated from becoming infected, and, next, to destroy the infected ones. That calls for drainage, for the making certain that there are not water containers of any kind, anything that will hold fresh water, especially sitting around the houses. The *Stegomyia* breeds in and about habitations. It does not breed in the swamps. To prevent mosquitoes becoming infected it is necessary to discover a patient as quickly as possible and to screen him, that mosquitoes may not get to him. The next step is to destroy the live mosquitoes, which is done by fumigation.

The fumigation of Panama and Colon had proceeded as had been found sufficient in Cuba; that is, the house in which a patient was and in which the disease developed had been fumigated, and the adjoining houses. The disease had appeared in many localities in the town of Panama, and fumigation had taken place in so many different parts that practically the entire town had been fumigated once, but it was spread over a period of practically of one year. It was decided to fumigate the town as a whole—that is, to fumigate the town rather than the houses—and to complete the fumigation of the town in the shortest time possible.

Colonel Gorgas reported that he did not have sufficient facilities in the way of fumigating pots, and ladders, and paste pots, and things of that sort to conduct the work, and he made out a requisition for supplies of that class. I cabled to Washington asking for exactly what he had requested. Within forty-eight hours it was on the way, and upon arrival on the Isthmus the fumigation of Panama was entered upon.

Senator KNOX. What do you mean by fumigating the town rather than the houses.

Mr. MAGOON. I mean to take the town as the unit. I mean to go to work to fumigate the whole town; not taking this house and this house [indicating], or fumigating a few houses in different localities, but to sweep over the whole town.

Sentor KNOX. You mean fumigating a town by fumigating all the houses? That is what you mean?

Mr. MAGOON. Yes, sir.

Senator KITTREDGE. Had Colonel Gorgas made requisition for that material prior to the time you arrived?

Mr. MAGOON. I do not think he had; not in that form. I think that his requisitions had been cut down early in the administration of affairs.

Senator KITTREDGE. To what extent?

Mr. MAGOON. I could not tell you as to that, Senator. I think that when his first requisitions came, calling, for instance, for several tons of pyrethrum, or insect powder, it was not understood at first that he was going to burn it, but it was thought that it would be used as insect powder is ordinarily used, and I think that some of his first requisitions were cut down in that way.

Senator KITTREDGE. When were they made?

Mr. MAGOON. They were made, I think, along in July or August of 1904, when the disease first appeared. I think the first case was in July, 1904.

Senator KITTREDGE. To what extent had the conditions that you describe continued until your arrival, according to the statement of Colonel Gorgas?

Mr. MAGOON. The disease had not become epidemic, say not exceeding 7, 8, or 9 cases a month, until the month of May, 1905, when it jumped to 33.

Senator KITTREDGE. I refer, Judge Magoon, particularly to the failure to grant requisitions.

Mr. MAGOON. I do not think it would be accurate to say that there was a failure, meaning a complete failure. They did for a time exercise a sort of a supervisory right over the requisitions of the sanitary department, and would cut them down.

Senator KITTREDGE. Where was that done?

Mr. MAGOON. In Washington, I think.

Senator KITTREDGE. By the Commission?

Mr. MAGOON. Yes, sir; there were great quantities of fumigating material supplied. The colonel's—I ought not to say exactly "complaint"—the colonel's statement was that he had not been given the free hand which was essential.

Senator KITTREDGE. Did he state that it was essential that he have a free hand in the interest of sanitation?

Mr. MAGOON. Yes, sir.

Senator KITTREDGE. And that it had not been given him?

Mr. MAGOON. Yes, sir.

Senator KITTREDGE. Did he make any statement about the responsibility for that condition?

Mr. MAGOON. No, sir. The work had been progressing in accordance with the plan that had been adopted in Cuba, and the colonel was of the opinion that the requirements, as he saw it during the time, had all been complied with; that the epidemic did not result

from any failure of supplies, or from any failure of work by his department, but that his work had not been as extensive as it would have been had he been given the free hand.

Senator KITTREDGE. Did he make any statement about conditions if he had been given the free hand that he desired?

Mr. MAGOON. No, sir; nor do I think that the increase resulted from a lack of facilities being accorded to the sanitary people. It is one of the things that came. There came the epidemic, or a sufficient number of cases, so that I term it epidemic. Yellow fever is a mysterious disease; there is very little known of it, and it comes and goes.

Senator MORGAN. Do you mean that it comes and goes whether people import it or not?

Mr. MAGOON. I suppose it must originate somewhere.

Senator MORGAN. I should think so.

Mr. MAGOON. And that it comes and goes in Panama is not surprising, because there are towns up and down the coast that are in communication with Panama, where it prevails practically all the time.

Senator MORGAN. Since the discovery of America by Columbus, Panama has been noted for its liability to epidemics of yellow fever, has it not?

Mr. MAGOON. Of course I do not go back quite that far, Senator, but it has been known up to recent times as being an unhealthful spot; yes, sir.

Senator MORGAN. It is mentioned by Humboldt as being the worst of all the locations in the world, except Aden, on the Gulf of Suez. About this matter of epidemics, I am extremely interested in it, because we have the question of quarantine up here, and that is one of the most important questions connected with this whole matter, as I understand.

Mr. MAGOON. Yes, sir.

Senator MORGAN. And I happen to be chairman of the committee of the Senate that has that subject in charge, and I am anxiously inquiring for what is best to be done and what can be done. I suppose that you would state, in common with the other gentlemen who have testified here, that the quarantine against bubonic plague in the Isthmus and against yellow fever during the last summer was a serious obstruction to your operations.

Mr. MAGOON. Yes, sir.

Senator MORGAN. Those connected quarantines continued for over two months, did they not?

Mr. MAGOON. Yes.

Senator MORGAN. Over two months?

Mr. MAGOON. Yes, sir.

Senator MORGAN. For more than two months of last summer, then, the operations on the Isthmus were seriously obstructed by the quarantine against bubonic plague and yellow fever?

Mr. MAGOON. The operations of the transportation company.

Senator MORGAN. That is what I had reference to.

Mr. MAGOON. Yes, sir—of the railroad.

Senator MORGAN. Well, you can not get along there without free transportation both by rail and by water?

Mr. MAGOON. No; but so far as our work was concerned—that is, as between Colon and Panama—there was no quarantine. The trains moved continuously.

Senator MORGAN. I understand.

Mr. MAGOON. It was the quarantine which was made by the outside ports against La Boca.

Senator MORGAN. Cutting you off from access to outside ports?

Mr. MAGOON. Yes, sir.

Senator MORGAN. That was a serious detriment to the work?

Mr. MAGOON. Not to the work of canal construction, I take it.

Senator MORGAN. To your general operations there?

Mr. MAGOON. But to the operation of the Panama Railroad with reference to commercial business.

Senator MORGAN. All of these different instrumentalities connected with the construction of the railroad must move in harmony and upon a general system; otherwise they are all obstructed?

Mr. MAGOON. Well, yes; in large measure.

Senator MORGAN. Very good. Now, you say the yellow fever comes in a sort of a mysterious way into the Isthmus and it goes. Is it actually brought there by the importation of people in Panama who have yellow fever, or does it originate there?

Mr. MAGOON. It undoubtedly could be and has been brought there by people coming from other localities. Whether it originates there or not I am unable to say. Medical science does not know.

Senator MORGAN. Have the members of the medical fraternity down there ever devoted their attention to that question?

Mr. MAGOON. As to finding whether it originates there?

Senator MORGAN. Yes.

Mr. MAGOON. Not specially, to my knowledge; but generally, of course, they are investigating the entire subject.

Senator MORGAN. I think I may say that they have neglected the whole matter if they have declined to investigate whether yellow fever originated there, or whether it was necessarily imported, or did not get there if it was not imported. It originates somewhere. Their theory is that conditions exist there for getting into an epidemic condition in regard to the spread of the disease.

Mr. MAGOON. Do you mean conditions exist there now?

Senator MORGAN. They did before they commenced operations?

Mr. MAGOON. Yes, sir.

Senator MORGAN. Yes. I think they exist there now as much as they did before; but they do not think so.

Mr. MAGOON. No; nor do I, Senator.

Senator MORGAN. It is all right for you to have that opinion, but I think I will come out ahead when we come to the final trial. Now, if a man is brought into the Zone with the yellow fever, and the stegomya abounds there, does not his presence, if he is exposed to the stegomya, necessarily create an epidemic condition of the disease within five or ten days in that Isthmus?

Mr. MAGOON. Will you pardon me if I ask you what you mean by the use of the word "epidemic?"

Senator MORGAN. I mean the rapid growth of a disease, spreading from person to person.

Mr. MAGOON. As I understand it, the doctors use the word "epidemic" only to describe an existing situation—that is, when there are a large number of cases; but prior to that time the disease is "present," as they term it.

Senator MORGAN. Yes. I want to get at this: I believe that in our quarantine regulations in the Isthmus we must not wait until a large number of persons have become infected, and thereby an epidemic, as they call it, has been created; but when a case comes there, imported, I will say, from abroad, without respect to the place of the origin of the disease, and it is exposed to the stegomya, and they are supposed to exist in sufficient quantity to distribute it very rapidly, is it not true that within a period of five or ten days that locality ought to be considered as epidemic with reference to other countries?

Mr. MAGOON. It ought to be considered that there is danger of non-immunes contracting the disease in that locality.

Senator MORGAN. Yes; it ought to be considered as an infected community?

Mr. MAGOON. Yes.

Senator MORGAN. The proposition that I have in mind, and which will serve to draw your attention to the particular point I want to bring out, is this—that in the Isthmian Zone or in Panama it is necessary to depart from the ordinary laws of quarantine in one particular. That is to say, to prevent the egress from that Isthmus of people going to other countries where the epidemic condition exists, or where the infected condition is probable from the fact that there are cases of yellow fever there that are being distributed by the stegomyia.

Mr. MAGOON. Do you mean people going from the Isthmus, or returning from such places to the Isthmus?

Senator MORGAN. Going from the Isthmus.

Mr. MAGOON. To localities where yellow fever exists?

Senator MORGAN. Yes.

Mr. MAGOON. They do not endanger the public health if they do not return, Senator.

Senator MORGAN. They do not endanger the public health there, but they endanger it everywhere else, at every place they go to.

Mr. MAGOON. Do you mean that a person going from the Isthmus of Panama should be debarred from entrance anywhere else?

Senator MORGAN. That is right; and they should be debarred from going out of that Isthmus because it is an infected district.

Mr. MAGOON. But I should say that the Isthmus of Panama is not an infected district now.

Senator MORGAN. Oh, I am not talking about now; I am talking about what it was in May, 1905, for instance, when you say yellow fever was epidemic there.

Mr. MAGOON. At that time I think that in the case of persons going to another locality where yellow fever could be propagated it would have been perfectly proper to have quarantined those people for the period necessary to demonstrate whether or not they had yellow fever. The yellow fever develops within seven days, and it is not a difficult matter to quarantine.

Senator MORGAN. All nations that enforce quarantine laws do it for their own protection, of course; and they enforce it against persons entering their countries, not persons going out. Now, I think that in order to enforce international sanitation and justice, in order to protect humanity, when an epidemic of yellow fever exists in the Zone nobody who is exposed to it should be permitted to go away until he has passed through some regulation of quarantine which

determines that he is not infected. In other words, a man must take a clean bill of health with him out of the Isthmus, just as a ship has to do. That is my proposition exactly; and I wanted to inquire of you as to the rationality of the proposition, because I do not see how we are ever to get along there if we are to permit people to come and stay as long as they wish and then depart, and in departing to carry this disease around the whole world. That is a point where everybody meets, you know—where a great many people meet.

Mr. MAGOON. It is a thoroughfare.

Senator MORGAN. Yes; it is a thoroughfare, and it is distributed out to the whole world. That is the proposition I want to get fully in mind; and if you are not prepared to answer it now as fully as you like, I will defer the answers to the further questions on that point until later.

Mr. MAGOON. It would be rational and feasible if we could put up a detention hospital to which anyone who made up his mind that he wanted to leave the Isthmus would apply for admission; then he would be kept under a screen constantly, day and night, for a period of seven days.

Senator MORGAN. Then the person could go with a clean bill of health?

Mr. MAGOON. Then he could be put under a screen, if necessary, and taken over and put on board ship.

The CHAIRMAN. Senator Morgan, will you now let the Governor go along with his statement?

Senator MORGAN. Yes.

The CHAIRMAN. You may proceed, Governor.

Mr. MAGOON. I had about completed that part of my statement relating to fumigation. We went to work and fumigated the city of Panama thoroughly. We divided the town into districts and employed local physicians to make a house-to-house daily inspection, in order to secure knowledge of the existence of fever as early as possible. The native physicians were instructed to see that every case of fever was promptly screened. Yellow fever is difficult to distinguish in its early stages, and it is in the early stages that the mosquito becomes infected, and therefore we screened everybody that showed up with fever. That plan worked very well, because in addition to their inspection for that purpose the physicians explained to the natives the necessity of destroying water containers; that is, of not having water standing around the house.

That is something that everybody in a community must assist in if it is to be effective, because during the rainy season it rains every day, and there are old cans and bottles and boxes and barrels and tubs and things of that sort, as well as pools, around the houses.

The same work was done in the same way in Colon, with the result that the disease "petered out." The work was commenced the latter part of June, and the effects were almost immediate. In July it dropped from 62 cases to 42 cases; the next month to 27 cases; the next month to 7; and after that two or three cases a month, until in the city of Panama this must be about the eightieth day since we have had a case of yellow fever.

In the city of Colon there were no cases after some time in October, if I remember rightly, until in December we had 3 cases that were doubtful, but which were reported as yellow fever. It was con-

sidered better to resolve the doubt against ourselves and save any question as to our trying to suppress the facts.

Senator KNOX. Governor, what is the duration of the disease; that is, from the period when it is pronounced to be yellow fever, either to convalescence or death?

Mr. MAGOON. It varies. The fever is supposed to reach its height in five days, but it is a variable disease as to that.

Senator KNOX. What is the average duration? Take the case of a man who recovers; how soon after the development of the disease is he pronounced convalescent?

Mr. MAGOON. I should say in from a month to six weeks, varying as to the power of resistance of the patient. The doctors continually respond, in reference to my inquiries as to treatment and kindred matters, that it is like a gunshot wound. A gunshot wound, as you know, will heal rapidly in one man, and in another not so rapidly. The disease is a poison that gets into the system, and it depends upon the power of the patient to throw off that poison.

Senator KNOX. It is somewhat like typhoid, then?

Mr. MAGOON. Yes, sir; or like ptomaine poison, or any other violent poison.

Senator KNOX. That is all on that point. Go ahead.

Mr. MAGOON. Regarding the hospital situation, which is part of the sanitary department of the government of the Zone, at the time of my arrival—which is the point you asked for—the hospital buildings left by the French company had been repaired, and the hospitals were in excellent shape. The only trouble was that the hospitals did not afford enough ward space. The modern hospital requirement exacts more cubic air space around a cot than was considered necessary as far back as the time of the French operations there.

Then, in addition, our plan was to promote the public health by getting into the hospitals all of the sick, without regard to whether they were the employees of the Commission or not. That was authorized by the old Commission and approved by the President as being essential, first, that our hospital staff might study the local diseases, and next, that the public health might be brought to such a state that the disease would not be communicated to our employees. The disease not being a respecter of the limitations of our employment, we had to take them all.

The force of the Commission increased rapidly, and it was soon found that we did not have enough hospital space, and the work of increasing the hospital space has gone on until now we have practically doubled the space which we had, say, in April and May of 1905. The objective point is to have hospital facilities for 5 per cent of the maximum force, with sufficient means for easy or immediate expansion to 10 per cent. If the maximum continues as at present we will reach the desired provision upon the completion of the hospital structures now authorized and in process of erection.

The quarantine service is also excellent. Its efficiency must be attributed to the fact that trained men from the hospital and public-health service of the United States were put in charge, and they have been applying the procedures, means, and remedies which have been adopted by that service. The quarantine is necessarily strict and is vigorously enforced by these gentlemen, acting in accordance with the knowledge acquired by their experience and training.



The police force of the Zone has been increased since May possibly one-third, to meet the increase in the number of camps to be kept under surveillance and the necessities of the public requirement.

The judicial system of the Zone consists of three judges of the supreme court (the court of appeals), who also act as trial judges.

Senator MORGAN. What are their names, if you please?

Mr. MAGOON. The chief justice is Mutis Duran.

Senator MORGAN. Is he a citizen of the United States?

Mr. MAGOON. He is not.

Senator MORGAN. Are there any others that are not citizens?

Mr. MAGOON. No, sir. The other two are Mr. Gudger and——

Senator MORGAN. How did it ever happen, Judge Magoon, that a man who is not a citizen of the United States became eligible to be the chief justice of the supreme court of any Territory in this Union?

Mr. MAGOON. It was based on the precedent of Chief Justice Arilano, of the Philippines. Three out of seven judges of the Philippine supreme court are not citizens of the United States.

Senator MORGAN. They are citizens of the Philippine Islands?

Mr. MAGOON. Yes, sir.

Senator MORGAN. And nominated as such in the act?

Mr. MAGOON. And in Porto Rico the same thing took place.

Senator MORGAN. Yes; they are nominated there as citizens of Porto Rico. But that does not prohibit them from being citizens of the United States, called citizens of Porto Rico or called citizens of the Philippines.

Mr. MAGOON. I was simply stating the reason. The judges in the Philippines and Porto Rico were appointed, Mr. Senator, as you will recall, under the military government before the act of Congress was passed.

Senator MORGAN. That precedent aside, do you know of any law of the United States which authorizes the employment of a foreigner, a noncitizen of the United States, as the chief justice or as a justice of any judicial court anywhere in the Union?

Mr. MAGOON. I do not know that it is expressly provided for, but I do not think there is anything which prohibits it.

Senator KITTREDGE. Under what authority does this court act?

Mr. MAGOON. Under the authority of an act of the Isthmian Canal Commission, enacted during the time that that body exercised the legislative power for the Zone, under the authority of the act of Congress which expired with the end of the last Congress.

Senator KNOX. Governor, I want to ask you in that connection, now that you have spoken of the courts, about the truth or the falsity of this statement in the communication which the President transmitted to the Senate, being an article by Mr. Poultney Bigelow.

Mr. MAGOON. Yes, sir.

Senator KNOX. He says:

"To-day we have the grotesque picture of a legal tribunal at the Isthmus, the head of which is Spanish, serving out law according to Spanish usage; and with him are associated two Americans, who know but their own local American law, and who are not even familiar with the language of the place, which is Spanish."

How about that?

Mr. MAGOON. The existing laws of Colombia, which continued in force in Panama, were continued in force in the Zone by the

President's order, such as were not inapplicable to the changed condition. That left in force the civil code, and, in fact, all of the codes; but the Commission enacted a penal code, a code of criminal procedure, and did away with those codes.

The civil code has been continued in force there as it was in the Philippine Islands for a number of years after the Philippine Commission had authority to legislate upon that matter; the Walker Isthmian Canal Commission did not draft a new civil code, and the power of legislation has passed away. The Commission no longer have that. The judges of the court, however, are at work preparing a new civil code, which we hope will be adopted.

Senator KNOX. Well, Governor, my question had not so much relation to that.

Mr. MAGOON. I am getting to the next part of it, Senator—that is, as to the Spanish law.

Senator KNOX. No; not so much as to that, but to the incapacity of the men who are administering the law.

Mr. MAGOON. The chief justice of the Zone is a man who was for a number of years the chief justice of the supreme court of the department of Panama under Colombia. He was, for a period, the governor of that department. He is an exceedingly able lawyer, who is able to deliver a legal argument in Spanish, French, or English. He has, I am advised, been to the States several times to conduct litigation for the Panama Railroad. He is one of the ablest men in that vicinity, and would take good rank anywhere as a lawyer.

Judge Collins was for a number of years a judge of the circuit court in the city of Chicago. I think they call it the circuit court, do they not, there?

Senator HOPKINS. Yes; the circuit court is the court of general jurisdiction.

Mr. MAGOON. Yes, sir.

Senator KNOX. Original jurisdiction?

Senator HOPKINS. Original jurisdiction.

Mr. MAGOON. Original jurisdiction—yes, sir. He is an exceedingly able lawyer, and in addition to his knowledge of the law he is an excellent French scholar. A large number of people in Panama speak French; and were he called upon in a case in which neither side understood English, in all likelihood he could communicate in French. There is an official court reporter who is proficient in Spanish.

Senator KNOX. Does Judge Collins speak Spanish at all?

Mr. MAGOON. No; I think not. He did not when he arrived, and he has not been there long enough to acquire a knowledge of it.

Judge Gudger was formerly one of the attorneys—I am not quite sure that he was an assistant attorney-general of the United States, but he was connected with the Attorney-General's Office for a number of years, and afterwards was consul-general of the United States at Panama; and he has been there for, I think, about ten years. I think he told me it was either ten or eleven years. He has been there a long time, at any rate; and he speaks Spanish, not as well as a native, of course, but as well as a Spaniard living that length of time in the United States would speak English. He has an excellent command of the Spanish language.

Senator KNOX. In what language are the proceedings of the court conducted?

Mr. MAGOON. In English—the papers and records.

Senator KNOX. The pleadings are all in English?

Mr. MAGOON. Yes, sir.

Senator HOPKINS. The bulk of the litigation there comes under the rules that have been adopted by the Commission?

Mr. MAGOON. Yes, sir.

Senator HOPKINS. Have you heard any complaint of the manner in which the law has been administered by the courts there?

Mr. MAGOON. None whatever; and many compliments—many compliments. It is a new court to those people. They have not known that kind of court. A good many of the natives get into court in one way and another; and the procedure and the way the judicial powers are exercised command the full respect of not only the natives and aliens, but of our own people.

I want to call attention to the fact that the overwhelming majority of the people in the Zone over which our courts exercise jurisdiction speak English. They are not from the United States, but they are from the West Indies and from Jamaica and Barbados and the other islands; and with the exception of Martiniquans they all speak English.

Senator KNOX. Mr. Bigelow spoke in the words that I have read to you from his article of the condition. He speaks of the result of that condition in the next sentence, and I want to ask you as to that:

“The confusion resulting from this may be compared to what would result if we attempted to run a transcontinental train without determining beforehand a standard of time.”

Is there any confusion resulting from the organization of the court, or the manner in which its business is administered?

Mr. MAGOON. None whatever. The result is justice, administered in due, orderly, and regular fashion and procedure.

Senator KNOX. Speaking as a lawyer, Judge, is there anything to be desired in the method of procedure down there?

Mr. MAGOON. Do you mean to ask whether I would like to have some new procedures?

Senator KNOX. Oh, no; I mean, taking it as a going court, administering justice from day to day according to the wants of the people and nature of the controversies that arise, is there anything to be desired?

Mr. MAGOON. There is not.

Senator KNOX. Is there any improvement to be made?

Mr. MAGOON. There is not.

Senator TALIAFERRO. Senator Knox, what are you reading from?

Senator KNOX. The article of Mr. Bigelow.

Senator HOPKINS. Judge, you are familiar with the procedure of the supreme court of New York and the circuit court of Illinois and the courts of Nebraska, are you not?

Mr. MAGOON. Yes, sir; reasonably so.

Senator HOPKINS. How does this court that you now speak of, that is in existence on the Isthmus, compare with the supreme court in New York or the circuit court in Illinois or the circuit court in Nebraska?

Mr. MAGOON. I will institute the comparison with the court of my own State, for which I have a very high regard and opinion. Either one of the judges of the supreme court of the Canal Zone could sit with credit on the supreme court bench of the State of Nebraska.

Senator MORGAN. How many cases has that supreme court tried?

Mr. MAGOON. I can not tell you offhand, but I can give it to you, and you will find it in the report.

Senator MORGAN. Your report says one case. Has there been more than one case tried before that supreme court?

Mr. MAGOON. Sitting as a supreme court?

Senator MORGAN. Yes.

Mr. MAGOON. Yes, sir.

Senator MORGAN. How many?

Mr. MAGOON. I would not be able to say as to that; but the work of the judges—

Senator MORGAN. Have there been as many as three?

Mr. MAGOON. I should say so; yes, sir.

Senator MORGAN. That is since you made your report, then?

Mr. MAGOON. Possibly. I am quite sure of one case that was argued shortly before I came away; but let me direct attention, Senator, to the fact that the work which the judges do is holding the trial courts.

Senator MORGAN. I am not speaking about that; I am speaking about the supreme court.

Mr. MAGOON. Well, sir, that is the fact.

Senator KNOX. They are the same judges, are they not?

Mr. MAGOON. Yes, sir; they are the same judges. They split up into these lower courts.

Senator MORGAN. Do you know of more than one case that has been tried in the supreme court as an appellate court?

Mr. MAGOON. I remember that the lottery cases went there, and they were dismissed at the time they came on for argument. The gambling case went there and was tried, and a decision was rendered sustaining the constitutionality of the law under which the man was punished. I think that a case of forfeiture of bond has been argued there; but other than that I can not now recall, Senator.

Senator MORGAN. Have these three great judges displayed this wonderful ability that we hear of in the trial of three cases before them?

Mr. MAGOON. Yes; they have displayed ability there, but my estimate of them is not based on those cases.

Senator MORGAN. No; I know it was not.

Mr. MAGOON. No, sir.

Senator MORGAN. Do they keep a book of reports?

Mr. MAGOON. Yes.

Senator MORGAN. Who is the reporter of the supreme court of the Zone?

Mr. MAGOON. It is a young man named Johnson.

Senator MORGAN. What does he get for salary?

Mr. MAGOON. I think that he does not get anything as clerk of the supreme court. He is the clerk of the first district, and was made ex officio the clerk of the supreme court, because there was not much to do.

Senator MORGAN. These judges try cases also in the courts of first instance?

Mr. MAGOON. Yes, sir.

Senator MORGAN. Are they required to do so by any enactments of the Isthmian Canal Commission?

Mr. MAGOON. Yes, sir.

Senator MORGAN. When they try cases in the courts below, do they sit in those cases in the supreme court?

Mr. MAGOON. Yes; they sit, but they do not participate, I think, in the judgment. It would be the other two.

Senator MORGAN. How many cases, Judge, have been tried in courts of first instance by these supreme court judges?

Mr. MAGOON. They are set forth in my report, Senator.

Senator MORGAN. They are all set forth in your report?

Mr. MAGOON. Yes, sir.

Senator MORGAN. It is not necessary to read them. I will get them out of it. That is as full a statement as you are able to make?

Mr. MAGOON. I will say that the statement printed is not as full as the statement which accompanied my report.

Senator MORGAN. You also have there judges of the circuit court?

Mr. MAGOON. They are these judges.

Senator MORGAN. These same judges?

Mr. MAGOON. Yes.

Senator MORGAN. They are judges of circuits?

Mr. MAGOON. Yes, sir.

Senator MORGAN. And of the supreme court?

Mr. MAGOON. Yes, sir.

Senator MORGAN. And then you have another inferior grade of court; what is that called?

Mr. MAGOON. The municipal court.

Senator MORGAN. The municipal court?

Mr. MAGOON. Yes, sir; they try police cases.

Senator MORGAN. And still another?

Mr. MAGOON. No, sir.

Senator MORGAN. The judge of the municipal court is, then—

Mr. MAGOON. Practically the same as justices of the peace in the United States.

Senator MORGAN. You have, then, three different jurisdictions occupied by two classes of judges?

Mr. MAGOON. Yes, sir.

Senator MORGAN. One the justices of the peace, as we call them?

Mr. MAGOON. Yes, sir.

Senator MORGAN. The other that of the supreme court judges, who travel circuits and try causes that originate there?

Mr. MAGOON. Yes, sir.

Senator MORGAN. Judge, when a man is condemned to death in the Isthmus by a court, and I suppose by a jury—I do not know whether you have a jury system there or not.

Mr. MAGOON. No, sir; we have not—not yet.

Senator MORGAN. You could not condemn a man to death, then, could you?

Mr. MAGOON. Yes; there is an enactment which requires that when an offense has been committed to which the death penalty attaches,

the judge of the district in which the offense arose shall call in two municipal judges, who shall sit with him to try the question of fact; and if for any reason either of these judges, or both of them, are disqualified from sitting in that case, he may then call either a justice of the peace from an adjoining municipality, or some citizen, or two citizens, as the case may require.

Senator MORGAN. And the court thus composed proceeds to try the man for his life?

Mr. MAGOON. Yes, sir.

Senator MORGAN. For murder or assassination or anything that is a capital crime?

Mr. MAGOON. Yes, sir.

Senator MORGAN. You have not as yet had the unpleasant necessity of trying a man for his life down there, I believe?

Mr. MAGOON. No, sir.

Senator MORGAN. Is the power that these men have to inflict the sentence of death derived from legislative acts of the Isthmian Canal Commission?

Mr. MAGOON. Yes, sir.

Senator MORGAN. Nowhere else?

Mr. MAGOON. Nowhere else, excepting the authority of Congress that they may exercise that legislative power.

Senator MORGAN. Do you know of any authority that Congress has to deny a man, who is on trial in a capital case anywhere in the United States or under its jurisdiction, a trial by jury?

Mr. MAGOON. I think that presents a very serious question, Senator.

Senator MORGAN. You do? I do, too.

Senator KNOX. Has not the Supreme Court of the United States ruled in the Philippine cases that they are not entitled to a trial by jury?

Senator MORGAN. The Philippines are regarded, as I understand it, as being within the jurisdiction of the United States; but they have an autonomy there which enables them to dispense with capital punishment.

Senator KNOX. I rather think these gentlemen claim that they have an autonomy?

Senator MORGAN. Yes.

Mr. MAGOON. We are trying to.

Senator MORGAN. They have an autonomy derived from Congress?

Mr. MAGOON. Congress has taken the position that we are not a part of the United States and has erected the tariff and immigration barrier against us.

Senator HOPKINS. Does not the enactment of the Commission under which these judges have authority have practically the same force and effect as the code over in the Philippines, and would not the same rule that permits the trial of a man for a capital offense in the Philippines without a jury, such as we have in this country, warrant that kind of action under the code there in Panama?

Senator MORGAN. I understand the government of the Philippines to be a territorial government.

Senator KNOX. No; that is just the distinction. They held that it was not, but a separate autonomy existing under an act of Congress. Of course, the court split on this question, as they usually do in great

cases. It was held by a majority of the court that the system existing there of trying a man for his life without a jury was all right; it was not prohibited by our Constitution, although we own the islands.

Senator MORGAN. Is it provided that a citizen of one of the States of the American Union who, under the employment of the Government of the United States, goes down there and engages in work, because he enters upon the Zone, is deprived of the right of trial by jury? If he is a citizen, for instance, of Alabama or any other State in the Union, does he lose his right of trial by jury because he has gone down there under the employment of the Government?

Senator KNOX. That question was not decided in that case. The question decided there was the case of a native Filipino.

Senator MORGAN. I am talking about a man from Alabama, who is a citizen of the United States.

Senator KNOX. I would not like to guess what the court would decide under those circumstances.

Mr. MAGOON. Nor I, either; but of course he is not deprived, Mr. Senator, of the liberty to select the forum for his crime. If he wants to be tried by a jury, he is at liberty to perpetrate the crime in a jurisdiction where that system prevails.

Senator MORGAN. Suppose he does not find the victim in that jurisdiction? [Laughter.]

Senator HOPKINS. Well, then, he takes his chances.

Mr. MAGOON. He takes his chances on the procedure which antedated the offense. You see, of course, he could preserve all his rights by not committing the crime.

Senator MORGAN. Yes.

Mr. MAGOON. But seriously, Senator, the idea was to see to it that a man could not commit an offense which justified the infliction of the death penalty and escape all punishment. He should not do those things with absolute immunity.

Senator KITTREDGE. Under what theory, Judge Magoon, do the laws enacted by the Canal Commission continue after the right to legislate has ceased?

Mr. MAGOON. On the theory that the laws of this session of Congress will continue in force after its expiration.

(The committee thereupon took a recess until 2 o'clock p. m.)

#### AFTER RECESS.

#### STATEMENT OF MR. CHARLES E. MAGOON—Continued.

The CHAIRMAN. Are you ready to proceed, Governor Magoon?

Mr. MAGOON. Yes, sir; the next branch of the government to which I would like to refer is what we call the department of revenues, which consists of such service rendered to shipping and cargoes in the harbors in the ports of the Zone, Cristobal and La Boca, as is permitted under the agreement with the Panama Republic. This department also has charge of the post-offices, of the lands and the internal revenue, schools, and the administration of the estates of deceased employees which do not exceed \$500. It is probably unnecessary to state what the situation is respecting the ports, as that is covered by the agreement between this Government and the

Republic of Panama, negotiated by Secretary Taft. There remains a considerable service to be rendered shipping, but practically nothing for imports. That service is now rendered in a very efficient manner, and was at the time I arrived.

The post-offices at that time were in the stations of the Panama Railroad Company, and the station agents were acting as postmasters. The development in this branch was unexpectedly large, and it became necessary to move them from the stations into separate buildings and to appoint separate postmasters. The station agents had more than they could do with the work of the railroad and much more than they could do in connection with the department of posts. Fourteen out of seventeen of these post-offices are now in separate buildings. All of them were old buildings of the French company which have been remodeled and made into post-offices, and the service is excellent. The foreigners, from the West Indies especially, are much given to letter-writing, and the mail service is a large one. The mail between the Isthmus and the States has greatly increased. It was at first three or four mail sacks. Now it runs up to 50 or more at every sailing.

The department of revenues also handles the lands which are leased, in fact, all of the lands to which the United States has the proprietary title—that is, those that are leased in small patches to holders. The moneys when collected are converted into the treasury of the United States.

Senator ANKENY. Governor Magoon, what was the necessity for a different postal service there? I see there was issued a Zone stamp.

Mr. MAGOON. You will recall the controversy between the Republic of Panama and the Commission first, and afterwards the United States Government, respecting the exercise of sovereign powers by the United States on the Zone. They took the position that we were given sovereign rights solely for the purpose of canal construction and insisted that maintaining post-offices was no part of the construction work, and they emphasized their complaint by reference to the fact that it would destroy their postal service and injure their revenues.

Senator ANKENY. But our service was entirely adequate for any needs that our people required, was it not?

Mr. MAGOON. Oh, yes. I was explaining the difference in the stamps. To finish that though: They charged 5 cents for carrying mail between the United States and the Isthmus through their postal service. We wanted that cut down. We wanted to bring them to a 2-cent basis, and they said that also would interfere with their revenues. Of course, revenue is essential to all governments, and especially so to a new government and a small government, and the United States having guaranteed the integrity of that nation it might possibly be called upon to make that good by an appropriation of money if we were to deprive them in one way or another of their sources of revenue.

Senator ANKENY. It was entirely in their interest?

Mr. MAGOON. Yes; it was in the interest of the Panama Government that the Secretary agreed that we would purchase the stamps of the Panama Republic, paying them 40 per cent of their face value, surcharging them, and using them in our service. They in response



were to reduce the rate of postage from 5 cents to 2 cents, the same as we had, and carry our franked matter, our official envelopes, through their mails free.

Senator KITTREDGE. At what price do you sell the stamps?

Mr. MAGOON. We sell them for 2 cents, just the same as we do here.

Senator DRYDEN. You sell them for just what they cost the Government?

Mr. MAGOON. No, sir. We buy them on a 40 per cent basis and sell them for their face value.

Senator DRYDEN. Forty per cent of 5 cents?

Mr. MAGOON. No, sir; 40 per cent of the face value.

Senator DRYDEN. Forty per cent of 2 cents?

Mr. MAGOON. Yes, sir. The postage had been 5 cents, but they cut that down to 2 cents, and we buy our stamps from them on a 40 per cent basis.

Senator DRYDEN. Why should the Government make a profit out of that business? Why does the United States Government make a profit out of this postal arrangement?

Mr. MAGOON. The United States Government does not make a profit, Senator. The government of the Canal Zone makes the profit. The proceeds from the sale of those stamps goes into the treasury of the government of the Zone.

Senator DRYDEN. What is the theory in justification of the canal enterprise making a profit?

Senator HOPKINS. It is on the same principle, is it not, that we make a profit on the stamps that are made and used by the public here?

Mr. MAGOON. Yes, sir. You see, if we were to sell them at absolute cost, if we used our own stamps, we would, of course, destroy the sale of the Panamanian stamps. If we used United States stamps we would destroy the sale of the United States stamps in the country if we charged less than 2 cents for the postage stamp there. The object of selling the stamps at their face value is to pay the expense of the mail service by the sale of stamps.

Senator DRYDEN. The so-called profit, then, may not be net profit?

Mr. MAGOON. No, sir; there is no net profit, of course. The sale of the stamps would not pay the expense of the service.

Senator HOPKINS. It would not pay the postal expenses?

Mr. MAGOON. No, sir; it would not.

In May, 1905, there were no free public schools in the Zone. There were some private schools—one kept by the Christian Brothers, one by a missionary of the Wesleyan faith, and one by the Church of England mission.

We have been very anxious to start schools, but have had difficulty in securing schoolhouses. However, this is now being overcome, and there are 10 schools in the five municipalities of the Zone. We hope to increase this number to 40 within the next year.

Senator HOPKINS. Do you teach other than English in the schools?

Mr. MAGOON. Yes, sir; we teach both English and Spanish. We have text-books similar to those used in Porto Rico.

Senator KNOX. What children are entitled to the use of these schools?

Mr. MAGOON. All of the children of the Zone.

Senator KNOX. Whether they are the children of employees or not?

Mr. MAGOON. Yes, sir.

Senator KNOX. There is no discrimination?

Mr. MAGOON. No, sir.

Senator HOPKINS. Where do your teachers come from?

Mr. MAGOON. So far we have been able to secure teachers who were there on the Zone, either the daughters or relatives of some of our employees, or some person who had been a school teacher.

Senator HOPKINS. Where do you draw your revenue for the support of the schools?

Mr. MAGOON. We are taking it from the Zone funds, so far as those funds will meet the expense.

Senator HOPKINS. What do you mean by the Zone funds?

Mr. MAGOON. The internal revenue, the municipal taxation. The municipalities have been given authority to levy taxes on real estate, one-half of which must be devoted to school purposes.

Senator HOPKINS. Yes; and the other half to municipal purposes?

Mr. MAGOON. Yes, sir.

Senator HOPKINS. Has that proven adequate to support the schools you have spoken of?

Mr. MAGOON. These schools have been running but a very short time.

Senator HOPKINS. Yes.

Mr. MAGOON. I am inclined to think that it will, unless we find it necessary to put in what we call a graded school or a high school at Cristobal and at Ancon.

Senator HOPKINS. These schools you speak of are all primary schools?

Mr. MAGOON. Yes, sir.

Senator HOPKINS. Have you any statistics to show the attendance?

Mr. MAGOON. No, sir; I could get them. I have statistics as to the schools-age population.

Senator HOPKINS. But not as to the attendance?

Mr. MAGOON. No, sir.

Senator MORGAN. In what language is the instruction conducted?

Mr. MAGOON. English is the language—

Senator MORGAN. Exclusively?

Mr. MAGOON. No, sir; we teach the Spanish language, but English is the language of the school.

Senator KNOX. I want to ask you a question about the revenue of the Zone: Are all the expenses of the Zone government paid out of the revenue of the Zone?

Mr. MAGOON. No, sir; none of the expenses of the Zone government excepting the expenses of the municipalities. All of the municipal officers, the mayors, treasurers, and the municipal judges and the city council, where they have a salary, are paid out of the revenue of the municipalities.

Senator KNOX. Is your salary as governor and are the salaries of the judges paid out of the revenue of the Zone?

Mr. MAGOON. No, sir; they are paid out of the revenues of the United States.

Senator MORGAN. Were those revenues sufficient to pay all the expenses of the municipalities?

Mr. MAGOON. Yes, sir; I am passing to the municipalities.

Of the five municipalities in the Zone, every one has a balance on hand in the treasury, and they are entering upon a scheme of public improvement. Two of them have already constructed market houses, and two of them have market houses in process of erection. That is, one has let the contract, and the other has just been authorized to put them up. They are also doing considerable work in the way of street crossings, fixing up the streets, and lighting the streets.

Senator HOPKINS. Before we leave the school question, Where are these schools located on the Isthmus that you have spoken of?

Mr. MAGOON. They are in the Zone.

Senator HOPKINS. I know they are in the Zone, but are they near Colon or Panama?

Mr. MAGOON. They are along the line. The first one out from Panama is at Corozal, a station about 4 miles from Panama.

Senator HOPKINS. Have you these schools in either Colon or Panama?

Mr. MAGOON. Neither, no, sir; those are without our jurisdiction.

Senator HOPKINS. I know they are. That is the reason I asked you the question.

Mr. MAGOON. They are all of them within the Zone, and are in the little towns along the line of the Panama Railroad, entirely within the Zone.

Senator HOPKINS. How many of those are there in number, you say?

Mr. MAGOON. Ten.

Senator DRYDEN. Is attendance upon those schools voluntary or compulsory?

Mr. MAGOON. Voluntary.

Senator DRYDEN. Is there an age limit to the pupils?

Mr. MAGOON. No, sir; we have not fixed any age limit. I do not think that we ever would.

Senator DRYDEN. They are limited, practically, to the children of the employees or the inhabitants of the Zone?

Mr. MAGOON. Yes, sir.

Senator HOPKINS. They are what you call the free schools?

Mr. MAGOON. Yes, sir.

Senator HOPKINS. In the free schools do you, in addition to furnishing teachers and the schoolhouses, also furnish schoolbooks?

Mr. MAGOON. We do.

Senator HOPKINS. Everything is free?

Mr. MAGOON. Yes, sir.

Senator MORGAN. You spoke of a land tax levied by the municipalities?

Mr. MAGOON. Yes, sir.

Senator MORGAN. What is the percentage of the tax to the value of the land?

Mr. MAGOON. They can not exceed 1 per cent of the assessed valuation of the land, and are required to levy one-fourth of 1 per cent.

Senator MORGAN. Who makes the assessment?

Mr. MAGOON. The municipal board of assessors, consisting of the mayor, treasurer, and a third party, appointed by the governor.

Senator MORGAN. Do the municipalities collect their revenues, the tax on land, and carry it into the treasury of the municipality?

Mr. MAGOON. Yes, sir; the money is deposited with the treasurer of the Zone; but that is for safe-keeping.

Senator MORGAN. The treasurer of the Zone has no responsibility connected with the receipt or disbursement of the canal funds or Commission funds?

Mr. MAGOON. He is the disbursing officer of the Commission.

Senator MORGAN. He is the same person?

Mr. MAGOON. The same person, yes.

Senator MORGAN. But it is a separate office?

Mr. MAGOON. Yes, sir.

Senator MORGAN. Are the taxes levied by the municipalities on lands uniform throughout the whole Zone, as to percentage?

Mr. MAGOON. I should presume not. The matter has never been the subject of any complaint and the question has not arisen heretofore, and this is the first year that it has been done, you know. There is a provision made, if there should be complaint of unjust assessment, for a review of it by a higher board, composed of representatives of each of the municipalities, which will meet and pass upon any objections that might be made.

Senator MORGAN. There is a higher board?

Mr. MAGOON. Yes, sir.

Senator MORGAN. Suppose there should be dissatisfaction with the judgment of that higher board, where would the man go?

Mr. MAGOON. That is considered conclusive. That is the end of an appeal, when that board passes on it. Of course, there would be the legal remedies.

Senator MORGAN. Are these lands that are taxed lands that are leased from the United States?

Mr. MAGOON. The improvements on such lands are taxed. The lands of which the proprietary title is in the United States can not be taxed.

Senator MORGAN. Are there tracts of land in the Zone where the ownership is in private individuals?

Mr. MAGOON. Oh, yes, sir.

Senator MORGAN. Any considerable number of them?

Mr. MAGOON. Yes, sir. I should say that in the Zone more than half of the land is owned by private individuals. What I mean by that is, outside of what the Government of the United States owns, what the French company owned and we acquired from that company, and what the Panama Railroad Company owns, including those as public, I should say that even then, one-half of the property of the Zone is owned by private individuals.

Senator KITTREDGE. In what condition do you find titles to real property down there?

Mr. MAGOON. Very bad. Practically you have to rely on adverse possession for a sufficient number of years.

Senator KITTREDGE. Why is that?

Mr. MAGOON. Well, the reason why it continues so is that we have not a judicial body that can pass upon and judicially determine the titles, very largely for the reason that there is no court down there that is competent to entertain a suit against the United States.

Senator KITTREDGE. Is the remedy for that condition through legislation that Congress may enact?

Mr. MAGOON. Undoubtedly; and Congress should do so without delay. It will prove embarrassing to the work if we do not have legislation which either creates a new court or confers upon the existing court down there the authority to hear and determine controversies respecting the title of land the proprietary title to which is claimed by the United States.

Senator KITTREDGE. Is there any dispute as to the title to real property that the railroad company owns?

Mr. MAGOON. Yes, sir; some of that is involved in controversy.

Senator KITTREDGE. How does that controversy arise?

Mr. MAGOON. Well, that controversy arises by reason of people claiming that they own land that the railway claims is a right of way, or that the railway claims to have acquired in one way or another.

Senator KITTREDGE. Can you give us some illustrations of the character of claims that these people make?

Mr. MAGOON. A good many claims will arise like this: Under the Colombian law, land known as menglares, the swamp lands, which are affected by the action of the tides, belong to the State, and when they are alienated there must be certain procedure followed. As we found in the Philippines, you had to follow a procedure which was cumbersome, involved many delays, and was somewhat expensive.

So the Spanish people, and especially in the "lands beyond the seas," did not seem to trouble themselves very much with getting title. They were satisfied if they were allowed to maintain possession. They would occupy land and live on it, family after family, generation after generation, until by common consent it was known as the property of that family. The seat of government was far removed. Bogota, as you know, is a good ways from the Isthmus, and not much trouble was ever made over it. And now there comes up a question as to who owns this property, whether it is the property of the United States or whether it is the property of these people, whose ancestors have lived on this land for a great many years.

Senator KITTREDGE. What is the law of that country—that is, the Zone—relative to adverse possession?

Mr. MAGOON. The Colombian law still continues as to that, and under that law a title such as we call a "paper title" in the United States, based upon an instrument purporting to convey, will ripen into perfect title in fifteen years. Where it is adverse possession exclusively the time required is twenty years.

Senator MORGAN. That is the Colombian law, and that is still in force in there?

Mr. MAGOON. Yes, sir.

Senator MORGAN. They have not enacted any statute of limitations?

Mr. MAGOON. Not as to title to real estate.

Senator KITTREDGE. Do you consider it necessary to have Congress, or the Canal Commission, if they are empowered to legislate, pass further laws on the subject?

Mr. MAGOON. Yes, sir.

Senator KITTREDGE. Of what character.

Mr. MAGOON. As to this particular matter?

Senator KITTREDGE. As to the foundation of the lawsuit that is to be provided for.

Mr. MAGOON. As I say, I think that the existing court down there should be given jurisdiction to hear and determine questions of title where the United States is involved, and that there should be some legislation which would compel the going into court and the establishing of title; something which would require that after a prescribed time the titles must be registered, and that in order to become entitled to registry it must be judicially determined or confirmed.

Senator MORGAN. I suppose our court of private land claims would be a very good model for that?

Mr. MAGOON. Very good indeed.

Senator KITTREDGE. Do you advise that the right that any party may seek to enforce regarding the title be permitted to rest upon the law of the country?

Mr. MAGOON. Yes. I think we would be obliged by the treaty to recognize, for instance, a title which had ripened into perfect title prior to the exchange of ratification, or the time of the negotiation of the treaty, possibly, and certainly to the present, because the law has been in force down there. I do not think we should pass legislation which would destroy a title that ripens to-day, for instance.

Senator KITTREDGE. That is, under the law of the country?

Mr. MAGOON. Under the law of the country; yes, sir.

Senator KITTREDGE. Have you any suggestions upon that subject as far as the future is concerned?

Mr. MAGOON. Well, I think that the present period of prescription is about right. I should think fifteen and twenty years, or possibly ten years, would be a sufficient time. In the West it is usually five years.

Senator KITTREDGE. Five or ten years.

Senator MAGOON. Would not a dam across the Chagres River at Gatun, say 85 feet high—

Senator KITTREDGE. You mean Gamboa, do you not, Senator?

Senator MORGAN. No; at Gatun. Say that it is 85 feet high, and it creates a lake of a depth at the deepest part of 85 feet, up as far as Obispo and out through the waters there, up as far as Gamboa, up the Chagres River, and also through the other streams that are affluent there; would not that cover up pretty nearly all the land that is owned or claimed by different claimants in that Zone?

Mr. MAGOON. It would not flood the Zone, but my understanding is that it would flood about 120 square miles.

Senator MORGAN. Yes.

Mr. MAGOON. But, of course, it would go beyond the Zone on either side.

Senator MORGAN. Such a proposition as that, then, would require the condemnation of these lands?

Mr. MAGOON. Either the condemnation or the payment of damages after the injury was inflicted.

Senator MORGAN. Condemnation includes the payment of damages, of course.

Mr. MAGOON. But what I mean is this: I think under the treaty we would have the right to flood the land without condemnation proceedings.

Senator MORGAN. I think we would. I think we could do that before making compensation.

Mr. MAGOON. Yes.

Senator KITTREDGE. I suppose the land, in that event, would be very valuable? [Laughter.]

Mr. MAGOON. Undoubtedly.

Senator MORGAN. In that view of the situation there would such a process as that, flooding the lands with water so that they would be uninhabitable for agricultural or residence purposes, involve an expenditure of any large amount of money?

Mr. MAGOON. We would have to pay the value of the land.

Senator MORGAN. At the time the treaty was made?

Mr. MAGOON. Yes, sir.

Senator MORGAN. That is the limit.

Mr. MAGOON. Well, is that the limit?

Senator MORGAN. Yes; that is the limit.

Senator HOPKINS. It is the provision in the treaty.

Mr. MAGOON. It is the provision in the treaty. Do you think that our court would sustain that, though? I think there is very serious question of it.

Senator MORGAN. The courts would sustain anything in the form of a treaty that the Senate had ratified, because it is the supreme law of the land.

Mr. MAGOON. Undoubtedly; but take this question: The Government comes along and sees a piece of land to-day, and there is a treaty that says that its value shall be that to be ascertained as of some years previous. I think it presents a very serious question.

Senator KNOX. Does not the treaty amount to notice to the landowner?

Mr. MAGOON. Yes; I think it would.

Senator KNOX. It is just exactly as it is in Pennsylvania, when a railroad goes and locates its line and puts down its stakes, and if it does not build for five years the property is considered as taken as of the time of the location. The landowner may commence his action for damages then.

Mr. MAGOON. But could he do it before they drove the stakes?

Senator KNOX. No; there has to be some notice to him. I would regard this treaty as equivalent to notice, on the same theory that the location of the railroad on the land is notice to the owner of the property. Any open physical fact of that kind would operate as notice.

Senator MORGAN. I think it is much stronger than notice. I think it is an actual contract between the two Governments, when the land was sold to us, that intervening lands that might be used for canal purposes must be estimated at the value of the land at the time of the treaty and without reference to any improvements or increase of value that the canal might bring about.

Senator HOPKINS. If there is any point in Judge Magoon's position it is not a matter that could affect our Government, it seems to me, for this reason: We are treating with a sovereign power there that agrees to give us this property at a certain valuation. The citizen who is controlled by the Government might have some claim against his own Government, but I do not see how it could interfere with us.

Mr. MAGOON. I do not believe, Senator, that the Panama Government agrees to give us this property at a certain price.

Senator KITTREDGE. They permit us to take it.

Mr. MAGOON. They permit us to exercise the right of eminent domain in their territory, as well as in our own.

Senator HOPKINS. At a valuation fixed at a determinate time.

Mr. MAGOON. But in carrying that out a provision is made for a joint commission to be appointed by the President of the United States by the President of the Republic of Panama.

Senator HOPKINS. That is a question of condemnation.

Mr. MAGOON. When they determine the value they will not consider it at the value which it had before the time the treaty was negotiated.

Senator MORGAN. We seem to have acquired that right by treaty, and it is to be exercised in the way of eminent domain, if you please; but there is a question yet, that I think has painfully developed, as to the actual sovereignty of the United States over that Zone, which was referred to by the Senator from Illinois a while ago—the sovereign power.

It occurs to me that where a sovereign power has to be exercised in that Zone for the protection of the interests and rights of the United States, we would be obliged to assert it under that treaty that we are the sovereigns there.

I wanted to ask you in that connection about the provisions of the law, or the *modus vivendi* here as to holding elections in the Zone by the Government of Panama. This is provided in the *modus vivendi*?

Mr. MAGOON. I do not so understand it.

Senator MORGAN. You do not?

Mr. MAGOON. No, sir. It is provided that we will not interfere in any way to prevent citizens of Panama, who happen to be in the Zone, from going into the Republic to exercise the right of franchise.

Senator MORGAN. That is the way you understand it?

Mr. MAGOON. Yes, sir; that is my understanding of it.

Senator MORGAN. Do you remember the article?

Mr. MAGOON. No, sir; I do not, but I think I can turn to it.

Senator MORGAN. You are more familiar with that than I am.

Mr. MAGOON. Here it is; section 9 [handing to Senator Morgan Circular No. 4, Isthmian Canal Commission].

Senator HOPKINS. Under the Colombian Government was there any system of registration for real estate of private ownership as well as that of public ownership?

Mr. MAGOON. There is the old Spanish system, whereby they are registered in the office of the notaries. Then they have also the public registry in Panama, and the notary certifies the matter up.

Senator HOPKINS. Yes. Take the territory of the Zone here, whereabouts is the record of the title kept?

Mr. MAGOON. We have no registration office.

Senator HOPKINS. Or where was it kept prior to our securing an interest there?

Mr. MAGOON. Either in the district of Colon or the district of Panama, two of the divisions into which the department of Panama was divided.

Senator KNOX. My recollection is that under the Colombian law a transfer of real estate is not valid unless it is acknowledged before a notary.



Mr. MAGOON. Yes, sir.

Senator KNOX. We encountered that question in the examination of the canal titles, and for that reason we had an acknowledgment made before the minister from Colombia in Paris in making the transfer.

Mr. MAGOON. Yes. As nearly as I can get at it, it is the notary who makes the transfer.

Senator KNOX. Practically that is what it amounts to.

Mr. MAGOON. He is authorized by the owner to make the transfer, and he makes it.

Senator HOPKINS. The same as is done by a master in chancery where property is sold under an order of the court?

Mr. MAGOON. Very similar. And both parties have to sign the deeds—the man who conveys and the man who accepts signs his acceptance.

Senator MORGAN. In order to keep the record consecutive, in connection with my questions of a few minutes ago, I will read this Article 9 [reading from Circular No. 4, Isthmian Canal Commission]:

“SECTION 9. Citizens of the Republic of Panama at any time residing in the Canal Zone shall have, so far as concerns the United States, entire freedom of voting at elections held in the Republic of Panama and its provinces or municipalities at such places outside of the Canal Zone as may be fixed by the Republic, and under such conditions as the Republic may determine; but nothing herein is to be construed as intending to limit the power of the Republic to exclude or restrict the right of such citizens to vote as it may be deemed judicious.”

That merely means that a citizen of Panama, duly qualified as a voter, shall not lose his citizenship or his residence, if the laws provide for residence as a qualification for voters by residing in the Zone?

Mr. MAGOON. Yes, sir.

Senator MORGAN. That is as far as it goes?

Mr. MAGOON. Yes, sir.

Senator MORGAN. Do you think it would be a wise policy on the part of the Government of the United States to extend authority to the State of Panama to hold elections within the Zone?

Mr. MAGOON. No, sir; I would not think so.

Senator MORGAN. You would not think so?

Mr. MAGOON. No, sir.

Senator HOPKINS. On this question of title: Suppose under the Colombian law a controversy arises between two private citizens as to the title to a piece of real estate, how is that determined?

Mr. MAGOON. They go into court.

Senator HOPKINS. The process is similar to what we have in the States?

Mr. MAGOON. It is about like our old common-law chancery practice. At some distant time their descendants arrive at a final conclusion.

Senator KNOX. It is not speedy?

Mr. MAGOON. It is not speedy. It amounts practically to a denial of justice, just as it used to with us.

Senator ANKENY. Are there surveys established upon all that land within the Zone, in regular quarter sections as we have them here?

Mr. MAGOON. No, sir.

Senator ANKENY. Have we not an official survey of that country?

Mr. MAGOON. There is an official survey now being made of the lines between the Zone and the Republic, but of the territory of the Zone there has not been an official survey.

Senator ANKENY. In these controversies for land?

Mr. MAGOON. In these controversies for land there are very many of them that arise from the wording of deeds. For instance, part of the ground for the Ancon hospital was purchased from a private owner. He deeded to the French Company "the chicken pasture of the Santa Rosa estate."

Senator ANKENY. That was the description?

Mr. MAGOON. That was the description. After the French Company had been in possession of this property for ten or fifteen years he decided that they had taken more than the chicken pasture, so he brought suit against them and recovered judgment; and one of the judgments which were paid in connection with the transfer was this judgment, which the French Company were required to pay, of \$15,000 in gold, or \$30,000 in silver. Because of this defective description he was able to establish that the chicken pasture of the Santa Rosa estate did not include all the land which the French Company took under that description. You will find many similar instances of defective descriptions.

Senator ANKENY. Would it not be the logical course for our Government to establish official surveys of those lands?

Mr. MAGOON. If you knew the correct descriptions.

Senator ANKENY. Make them.

Mr. MAGOON. That is what I am saying: Let us have a judicial determination of the question as to who owns the several pieces of land constituting the Zone.

Senator ANKENY. Let it be done in the same way that we do it in our Territories.

Mr. MAGOON. By dividing the land into rectangular sections?

Senator ANKENY. By having a United States official survey.

Mr. MAGOON. That would be very difficult, because of the irregular holdings. That is, the estates vary, and they are not rectangular at all.

Senator ANKENY. I mean, to provide section corners and quarter-section corners—

Mr. MAGOON. But here is an estate, for instance, to establish the boundary line of which would be like following the meanderings of a stream. Here would be an estate which runs up here, and has an arm here [indicating], and then up this way [indicating].

Senator ANKENY. We could provide for that.

Mr. MAGOON. The condition is similar to that which prevailed in some portions of our country, where they used to sell fields.

Senator ANKENY. Yes; the Spanish grants in California were similar instances. Ought we not, however, to establish these official surveys? Ought not that land to be surveyed, just as the Territory of Oklahoma is, for instance?

Mr. MAGOON. We can do it, of course.

Senator ANKENY. Is not that a prudent thing to do, in your opinion?

Mr. MAGOON. I think we ought first to establish the boundaries of the several estates—the several subdivisions which have existed there for hundreds of years.

Senator HOPKINS. You mean establish them by some judicial procedure?

Mr. MAGOON. Yes; which is, of course, necessary to establish physical monuments to mark them.

Senator HOPKINS. Yes.

Senator KITTREDGE. This establishment depends upon the possession largely?

Mr. MAGOON. I think that most of their titles will go back to mere possession, although there have been grants made by the Colombian Government. That was especially true of pieces of real estate in the city of Panama itself. As they became more valuable, the people who claimed them went to the Government at Bogotá and secured the actual evidence of transfer; that is, the actual transfer of the title was made.

Senator KITTREDGE. The real issue in the trial of these cases in court will depend upon the fact of possession; is that the idea?

Mr. MAGOON. Very largely. In many of the cases it would be establishing occupancy for a given period of time.

Senator ANKENY. Will we not save much confusion by having an official survey, letting them settle their rights as to what part they own afterwards? Should we not know where corner section 1 is and where corner section 2 and 3 is, along there in the quarter sections?

Mr. MAGOON. Well, Senator, I do not think I make myself clear to you: For instance, supposing that there was a controversy respecting lots in the city of Washington?

Senator ANKENY. Then we would go to the official survey.

Mr. MAGOON. There would be the official survey of the lots, not of sections and quarter sections.

Senator ANKENY. Let them settle that afterwards. One of the first things down there should be to settle the different metes and bounds of these lands.

Mr. MAGOON. Yes, sir. That is undoubtedly the thing to do.

Senator ANKENY. You say it has not been done?

Mr. MAGOON. No. It is necessary to find out where the metes and bounds are. For instance, they will overlap each other. If you are fixing the metes of bounds of the Herrera land, you would encounter claimants, and undoubtedly written documents purporting to convey to Domingo a portion of this land.

Senator ANKENY. You would not know what you had settled unless you had our surveys?

Mr. MAGOON. No; but there would be an interlacing of the surveys.

Senator ANKENY. I admit that all kinds of controversies would arise afterwards, but it seems to me that we would save confusion by having an official survey.

Mr. MAGOON. Possibly, Senator. I should be very glad to have a remedy provided.

Senator ANKENY. It seems to me that we would have to have an official survey to settle any of these claims that will eventually arise. There will be difficulty about this, sooner or later.

Mr. MAGOON. Undoubtedly. We encounter difficulty right now in determining who shall be named as parties to proceedings before the joint commission.

Senator HOPKINS. You say "that we want to use." Do you refer to a piece of real estate that we supposed we had purchased?

Mr. MAGOON. No, sir. Take, for instance, what Senator Morgan called attention to: We start out either to condemn or to pay damages for a piece of country that is to be flooded. Here is this tract of land; to whom shall we pay the damages?

Senator HOPKINS. I understand.

Mr. MAGOON. Or if we can not make any arrangement as to that, who shall we make parties to the proceedings before the joint commission?

Senator HOPKINS. Yes.

Mr. MAGOON. Will the action of the joint commission protect us?

Senator KNOX. That is very easily provided for. Give public notice to let all parties who claim come in and make good their claims. Pay the amount of damages awarded by the Commission into court and let them dispute the distribution afterwards.

Mr. MAGOON. Do you think the joint commission is a judicial body which could determine the title?

Senator KNOX. That would not be necessary, to have it determine the title. Let the title be determined in court, as is done here. If a railroad wants to condemn a piece of real estate it gives notice to all the world and every man can come in to defend his title. If there is still a dispute they can pay the money into court and have it distributed afterwards.

Senator HOPKINS. Senator, is not that controlled by the statute of each State?

Senator KNOX. Of course it is. We can control this by a statute of Congress.

Mr. MAGOON. That brings me back to Senator Kittredge's question as to the necessity for legislation.

Senator KNOX. That is the subject I understand we are discussing.

Mr. MAGOON. Yes, sir.

Senator KNOX. Of course, this would have to be regulated by statute. All these proceedings would have to be regulated by statute.

Mr. MAGOON. Yes.

Senator HOPKINS. You spoke about the title of real estate being in controversy; is any part of the real estate in the Zone that was purchased by the Government in dispute?

Mr. MAGOON. Yes, sir. There are some pieces that are in dispute. There is one piece, claimed by a family—the Schubers—that is supposed that the French Company had title to, and I am of the opinion that it has; but the Schubers are contesting that, and they say that it has not.

Senator HOPKINS. Proportionately how much of the real estate that we acquired there is in controversy?

Mr. MAGOON. You mean that we acquired the proprietary title to?

Senator HOPKINS. Yes, sir.

Mr. MAGOON. Of that which we acquired from the French Company, I think only two or three pieces. The larger tract would be the Schuber tract.

Senator HOPKINS. Is any part of the title or the property that we acquired from the Panama Government in controversy?

Mr. MAGOON. Yes; there is a great deal of that, because that includes the Manglares—the swamp lands. They are the lands which are affected by the tides. They belong to the Government, but the Government can alienate them, and these people claim that they were alienated and that their ancestors got the title, or their grantors got the title. There are a number of such controversies as that.

Senator HOPKINS. What proportion of the real estate of the Zone is in that condition?

Mr. MAGOON. You mean—

Senator HOPKINS. Where the title is contested by individuals.

Mr. MAGOON. Well, I should not like to express an opinion on that, but I would say a considerable per cent of it. That would be about as near as I could tell you. The titles that are involved are practically all that are not owned by the Panama Railroad and the Isthmian Canal Commission.

Senator HOPKINS. How do you learn of these contests—by their filing claims with any branch of our Government down there?

Mr. MAGOON. Yes, sir.

Senator HOPKINS. What branch of the Government do they file them with?

Mr. MAGOON. They are filed with the Commission.

Senator HOPKINS. With the Commission itself?

Mr. MAGOON. Yes, sir; and they come around and tender them. They say: "Don't you want to buy this piece of land? You will need it to put the dirt on that comes from Culebra cut."

Senator HOPKINS. Is there any record of the pieces of land that are in controversy?

Mr. MAGOON. Do you mean, have we kept a record of the claims?

Senator HOPKINS. Yes.

Mr. MAGOON. We have the papers on file of all the claims that have been made, up to date.

Senator HOPKINS. But no steps, I suppose, have been taken to determine the rights of our Government as against those of private individuals?

Mr. MAGOON. No, sir. There is no court that can maintain jurisdiction in a case of that kind.

Senator HOPKINS. And no negotiations have been had by the Commission with such individuals?

Mr. MAGOON. No, sir. General Davis had some correspondence with the Schubers respecting the title to that estate, and I have had numerous conversations with claimants, but have abstained from writing, and have at all times said, "Undoubtedly there will soon be a judicial tribunal here that can pass upon that. It is not a proper question for the executive department to handle. You would not be satisfied with what I did, and we will have a court here that can try these matters."

Senator KITTREDGE. What legislation would you think proper, in the light of article 6 of the treaty, on the question of tax?

Mr. MAGOON (after consulting the section referred to). I think it would be necessary to have legislation which would provide a tribunal

to pass upon the titles; that it would be necessary to determine the conflict of rights made by a private individual as against the United States.

Senator KNOX. Do you think you could improve on Senator Morgan's suggestion to model it after the Court of Private Land Claims?

Mr. MAGOON. No, sir.

Senator KNOX. I think that is the best scheme I know of.

Mr. MAGOON. I think that is a very good scheme, to adopt that as a model.

Senator KITTREDGE. The point about which I was going to ask you is whether it is possible, in view of the treaty, to provide for the payment of money into court in condemnation cases; whether all that subject is not under the jurisdiction of this Joint Tribunal Commission?

Mr. MAGOON. Undoubtedly, so far as the treaty is concerned. Senator Knox's suggestion was to go ahead and fix the amount of damage, or the value of the property, and that then the Commission could pay it into some court and let the private persons litigate it.

Senator KITTREDGE. I misunderstood, then. I understood the suggestion was that the court should determine that question and then have the money paid into court under that proceeding.

Mr. MAGOON. That was to be at the termination of the proceeding provided for in article 6 of the treaty?

Senator KITTREDGE. Yes.

Mr. MAGOON. The suggestion of Senator Knox was that the amount assessed as damages should be paid into court to be litigated by all comers. That was the suggestion.

Senator KITTREDGE. I did not understand that suggestion, then.

Senator HOPKINS. Is it your opinion that if the present court there, composed of these three judges whom you mentioned before the recess, were given this power, they are competent to take charge of this litigation in connection with their other duties?

Mr. MAGOON. Yes, sir. It was with that in mind that the court was organized.

Senator HOPKINS. So that it would not cause any additional expense to the Government to clothe this court with the authority to determine the land titles, too?

Mr. MAGOON. No, sir.

Senator MORGAN. Governor, there is very serious question, in my mind, at least, and I think it must be in the minds of almost everybody, as to what are our actual rights in that Zone; as to what is the extent and nature of our sovereign powers there. I wish to ask the permission of the committee to insert in the record the Executive order contained in Circular No. 4, and signed by Secretary Taft, and published and ordered to be enforced by Admiral Walker as chairman of the Isthmian Canal Commission. I want to insert that in order that the Senate, when they come to consider our report, may have the facts all before it in consecutive order.

[The Executive order referred to is as follows:]

OFFICE OF THE ISTHMIAN CANAL COMMISSION,  
*Washington, D. C., December 30, 1904.*

CIRCULAR No. 4. }  
ISTHMIAN CANAL COMMISSION. }

The following order of the Secretary of War is published for the information and guidance of all concerned:

*PANAMA, December 3, 1904.*

By direction of the President, it is ordered that, subject to the action of the 58th Congress as contemplated by the act of Congress, approved April 28, 1904:

SECTION 1. No importation of goods, wares, and merchandise shall be entered at Ancon or Cristobal, the terminal ports of the canal, except such goods, wares, and merchandise as are described in Article XIII of the treaty between the Republic of Panama and the United States, the ratifications of which were exchanged on the 26th day of February, 1904, and except goods, wares, and merchandise in transit across the Isthmus for a destination without the limits of said Isthmus, and except coal and crude mineral oil for fuel purposes to be sold at Ancon or Cristobal to sea-going vessels; said coal and oil to be admitted to those ports free of duties for said purposes:

*Provided, however,* That this order shall be inoperative, first, unless the Republic of Panama shall reduce the ad valorem duty on imported articles described in class 2 of the act of the National Convention of Panama passed July 5, 1904, and taking effect October 12, 1904, from fifteen per centum to ten per centum and shall not increase the rates of duty on the imported articles described in the other schedules of said act except on all forms of imported wines, liquors, alcohol, and opium, on which the Republic may fix higher rates; second, unless article 38 of the Constitution of the Republic of Panama as modified by article 146 thereof shall remain in full force and unchanged so far as the importation and sale of all kinds of merchandise are concerned; third, unless the consular fees and charges of the Republic of Panama in respect to entry of all vessels and importations into said ports of Panama and Colon shall be reduced to sixty per cent of the rates now in force; and, fourth, unless goods imported into the ports of Panama and Colon consigned to or destined for any part of the Canal Zone shall not be subjected in the Republic of Panama to any other direct or indirect impost or tax whatever.

SEC. 2. In view of the proximity of the port of Ancon to the port of Panama, and the port of Cristobal to the port of Colon, the proper customs or port official of the Canal Zone shall, when not inconsistent with the interests of the United States, at the instance of the proper authority of the Republic of Panama, permit any vessel, entered at or cleared from the ports of Panama and Colon, together with its cargo and passengers, under suitable regulations for the transit of the imported merchandise and passengers to and from the territory of the Republic of Panama, to use and enjoy the dockage and other facilities of the ports of Ancon and Cristobal, respec-

tively, upon payment of proper dockage dues to the owners of said docks:

*Provided, however,* That reciprocal privileges as to dockage and other facilities at Panama and Colon, together with suitable arrangement for transit of imported merchandise and passengers to and from the territory of the Canal Zone, shall be granted by the authorities of the Republic of Panama, when not inconsistent with its interests, to any vessel, together with its cargo and passengers entered at or cleared from the ports of Ancon and Cristobal: *Provided, however,* That nothing herein contained shall affect the complete administrative, police, and judicial jurisdiction of the two governments over their respective ports and harbors, except as hereinafter provided in section 6:

*Provided, also,* That vessels entering or clearing at the port of Panama shall have the absolute right freely to anchor and lade and discharge their cargoes by lighterage from and to Panama at the usual anchorage in the neighborhood of the islands of Perico, Flamenco, Naos, and Culebra, though included in the harbor of Ancon under the provisional delimitation as amended under section 5 hereafter, and to use the said waters of said harbor for all lawful commercial purposes.

SEC. 3. All manifests and invoices and other documents in respect to vessels or cargoes cleared or consigned for or from the ports of Panama and Colon shall, as heretofore, be made by the officials of the Republic of Panama. All manifests, invoices, and other documents in respect to the vessels and cargoes cleared or consigned for or from the ports of Ancon or Cristobal shall be made by officials of the United States.

SEC. 4. No import duties, tolls, or charges of any kind whatsoever shall be imposed by the authorities of the Canal Zone upon goods, wares, and merchandise imported, or upon persons passing from the territory of the Republic of Panama into the Canal Zone, and section 5 of the Executive order of June 24, 1904, providing that duties on importations into the Canal Zone are to be levied in conformity with such duties as Congress has imposed upon foreign merchandise imported into ports of the United States, is hereby revoked, but this order shall be inoperative unless the authorities of the Republic of Panama shall grant by proper order reciprocal free importation of goods, wares, and merchandise and free passage of persons from the territory of the Canal Zone into that of the Republic of Panama.

SEC. 5. The provisions of this order also shall not be operative except upon the condition that the delimitation of the cities and harbors of Colon and Panama, signed on the 15th day of June, 1904, by the proper representatives of the governments of the Republic of Panama and of the Canal Zone, shall be provisionally enforced, and while the same shall remain in force with the consent of both parties thereto, the provisional delimitation shall include not only the terms set forth in the writing thereof, but also the following, viz: That the harbor of Panama shall include the maritime waters in front of said city to the south and east thereof, extending three marine miles from mean low-water mark, except the maritime waters lying westerly of a line drawn from a stake or post set on Punta Mala through the middle island of the three islands known as *Las Tres Hermanas*, and extend-



ing three marine miles from mean low-water mark on Punta Mala, which waters shall be considered in the harbor of Ancon.

SEC. 6. This order also shall be inoperative unless the proper governmental authorities of the Republic of Panama shall grant power to the authorities of the Canal Zone to exercise immediate and complete jurisdiction in matters of sanitation and quarantine in the maritime waters of the ports of Panama and Colon.

SEC. 7. The Executive order of June 24, 1904, concerning the establishment of post-offices and postal service in the Canal Zone is modified and supplemented by the following provisions:

All mail matter carried in the territory of the Canal Zone to or through the Republic of Panama to the United States and to foreign countries shall bear the stamps of the Republic of Panama properly crossed by a printed mark of the Canal Zone government, and at rates the same as those imposed by the Government of the United States upon its domestic and foreign mail matter, exactly as if the United States and the Republic of Panama for this purpose were common territory. The authorities of the Canal Zone shall purchase from the Republic of Panama such stamps as the authorities of the Canal Zone desire to use in the Canal Zone at forty per centum of their face value; but this order shall be inoperative unless the proper authorities of the Republic of Panama shall by suitable arrangement with the postal authorities of the United States provide for the transportation of mail matter between post-offices on the Isthmus of Panama and post-offices in the United States at the same rates as are now charged for domestic postage in the United States, except all mail matter lawfully franked and inclosed in the so-called penalty envelopes of the United States Government concerning the public business of the United States, which shall be carried free, both by the governments of Panama and of the Canal Zone: *Provided, however,* That the Zone authorities may for the purpose of facilitating the transportation of through mail between the Zone and the United States in either direction inclose such through mail properly stamped or lawfully franked in sealed mail pouches, which shall not be opened by the authorities of the Republic of Panama in transit, on condition that the cost of transportation of such mail pouches shall be paid by the Zone government.

SEC. 8. This order also shall not be operative unless the currency agreement made at Washington June 20, 1904, by the representatives of the Republic of Panama and the Secretary of War of the United States, acting with the approval of the President of the United States for the establishment of the gold standard of value in the Republic of Panama, and proper coinage shall be approved and put into execution by the President of the Republic of Panama, pursuant to the authority conferred upon him by law of the Republic of Panama, No. 84, approved June 20, 1904, and unless the President of the Republic of Panama, in order that the operation of the said currency agreement in securing and maintaining a gold standard of value in the Republic of Panama may not be obstructed thereby, shall by virtue of his authority conferred by law No. 65, enacted by the National Assembly of Panama on June 6, 1904, abolish the tax of one per cent on gold coin exported from the Republic of Panama.

SEC. 9. Citizens of the Republic of Panama at any time residing in

the Canal Zone shall have, so far as concerns the United States, entire freedom of voting at elections held in the Republic of Panama and its provinces or municipalities at such places outside of the Canal Zone as may be fixed by the Republic, and under such conditions as the Republic may determine; but nothing herein is to be construed as intending to limit the power of the Republic to exclude or restrict the right of such citizens to vote as it may be deemed judicious.

SEC. 10. The highway extending from the eastern limits of the city of Panama, as fixed in the above-mentioned provisional delimitation agreement of June 10, 1904, to the point still farther to the eastward where the road to the "Savannas" crosses the Zone line (which is 5 miles to eastward of the center axis of the canal) shall be repaired and maintained in a serviceable condition at the cost and expense of the authorities of the Canal Zone, and also in like manner the said road from the said eastern limits of the city of Panama to the railroad bridge in the city of Panama shall be repaired at the cost of the authorities of the Canal Zone; but this order shall not be operative unless the Republic of Panama shall waive its claim for compensation for the use in perpetuity of the municipal buildings located in the Canal Zone.

SEC. 11. The United States will construct, maintain, and conduct a hospital or hospitals either in the Canal Zone or in the territory of the Republic, at its option, for the treatment of persons insane or afflicted with the disease of leprosy, and indigent sick, and the United States will accept for treatment therein such persons of said classes as the Republic may request; but this order shall not be operative, unless, first, the Republic of Panama shall furnish without cost the requisite lands for said purposes if the United States shall locate such hospital or hospitals in the territory of the Republic; and, second, unless the Republic shall contribute and pay to the United States a reasonable daily per capita charge in respect of each patient entering, upon the request of the Republic, to be fixed by the Secretary of War of the United States.

SEC. 12. The operation of this Executive order and its enforcement by officials of the United States on the one hand, or a compliance with and performance of the conditions of its operation by the Republic of Panama and its officials on the other, shall not be taken as a delimitation, definition, restriction, or restrictive construction of the rights of either party under the treaty between the United States and the Republic of Panama.

This order is to take effect on the 12th day of December, 1904.

WM. H. TAFT,  
*Secretary of War.*

This order will be duly published and enforced.

(Signed) J. G. WALKER,  
*Chairman, Isthmian Canal Commission.*

Senator MORGAN. I notice in section 12 of this order this language: "The operation of this Executive order, and its enforcement by officials of the United States on the one hand, or a compliance with and performance of the conditions of its operation by the Republic of Panama and its officials on the other, shall not be taken as a delimitation, definition, restriction, or restrictive construction of the rights of

either party under the treaty between the United States and the Republic of Panama. This order is to take effect on the 12th day of December, 1904."

That reservation makes this what you might call a *modus vivendi*, an agreement to get along with conditions down there that were inconvenient, without in any wise interfering with the construction of the treaty, or of the authority that either party had under the treaty called the Hay-Varilla treaty. I wish to ask you whether there was much complaint or insistence on the part of the Government of Panama for the arrangement consisting of these 12 propositions as to disputed or controverted rights of the respective governments in the Canal Zone?

Mr. MAGOON. There has been none since I have been there; since that was entered into.

Senator MORGAN. No; before that time.

Mr. MAGOON. I know from the public press, and I know from the situation on the Isthmus in July, August, and September of that year, that there was a determination on the part of the Republic of Panama to insist upon their right, to the exercise of all rights of sovereignty, excepting such as were essential to the work of constructing the canal.

Senator MORGAN. Do you understand that they consider our rights under the Hay-Varilla treaty as being subject to their political sovereignty over the Zone?

Mr. MAGOON. No; I do not think they do. The position which they finally assumed, as I understand it, is that Panama is the titular sovereign, but that we have the perpetual right to exercise sovereignty over the Zone. Their position at first was that we had nothing more than a concession; that the United States Government had been substituted for the French company; but they receded from that position to the position that we have the perpetual right to exercise sovereignty over the Zone.

Senator MORGAN. Do you not think that it is necessary for the safe and proper execution of this agreement in the Hay-Varilla treaty that an agreement should be reached between that Republic and the United States which will fix a settled definition of what are our powers and our rights there?

Mr. MAGOON. Why, we are getting along very well under the arrangement set forth in the circular from which you have read.

Senator MORGAN. Would you think that this arrangement should be incorporated in the treaty?

Mr. MAGOON. No; I think not. As I understand that, it is the interpretation of an existing treaty. It is the working out of the plan provided for in the Hay-Varilla treaty.

Senator MORGAN. They say it "shall not be taken as a delimitation, definition, restriction, or restrictive construction of the rights of either party under the treaty between the United States and the Republic of Panama."

There is nothing permanent about this, and the question that I wish to call your attention to is whether or not this arrangement or some other arrangements ought not to be made permanent by treaty between the two governments or by act of Congress.

Mr. MAGOON. I should say no. I think there is an existing treaty, Senator, and that it is just a question as to working it out. I do not

think that it is a treaty which requires an act of Congress to make it operative.

Senator HOPKINS. Then it is not a treaty at all; it is an agreement that does not rise to the dignity of a treaty.

Mr. MAGOON. This is simply, as I understand it, an agreement as to how we shall execute the terms of that treaty; how we will work under it.

Senator MORGAN. That means a *modus vivendi* and an interpretation?

Mr. MAGOON. Possibly.

Senator MORGAN. But this denies the interpretation.

Mr. MAGOON. I think not. It says that this is not the only possible interpretation. I think it would not go any further than that.

Senator MORGAN. No. It says that it "shall not be taken as a delimitation, definition, restriction, or restrictive construction of the rights of either party."

Mr. MAGOON. "Restrictive construction?"

Senator MORGAN. Yes. The point I wish to get at is this: If Congress had enacted such a law as that, it would be still very questionable, I think, whether Congress could impose these twelve additional articles upon the treaty as a guide of the action of the Government of the United States in regard to its dealings with Panama; for instance, in the postal regulations, and in various other regulations, in these financial regulations that are included in this treaty. Congress could not do it, because that would be *ex parte* legislation. It could only be done by agreement between the two governments in some form or other. To make that an agreement, it must be such an agreement as binds both governments—that is to say, it must be a treaty agreement; and if it is not a treaty agreement, our Government is not bound by it, and the other Government is not bound by it.

What I want to know is if these provisions ought to stand as permanent provisions of law (as you seem to think ought to be the case), whether there ought not to be taken some action between the two governments to make it authentic and binding upon both governments?

Mr. MAGOON. As I say, Senator, my view is that is unnecessary.

Senator MORGAN. Your view is that it is unnecessary to do anything more?

Mr. MAGOON. That it is unnecessary to do anything more.

Senator MORGAN. You think, then, that Secretary Taft, acting for the Government of the United States, and whoever represented the Government of Panama, had the right to make this as a permanent agreement?

Mr. MAGOON. They have the right to make it as an agreement, as a procedure which we will follow; but when either party gets tired of it, then comes another question. I do not think that this is a thing that is like the laws of the Medes and the Persians. It is a plan, a satisfactory plan, under which we are operating.

Senator MORGAN. If it was a treaty, or to carry into execution the Hay-Varilla treaty, adding to it certain provisions that cleared up misunderstandings or inconvenient arrangements, neither party could at will throw it off without a breach of honorable duty to each other, at least.

Mr. MAGOON. Oh, we would have to take it up and talk it over, of course.

Senator MORGAN. Do you understand that either party has a right to dissent from this at any time, without giving offense to the other?

Mr. MAGOON. No; I would not want to say that.

Senator KITTREDGE. To what instrument are you referring, Senator Morgan?

Senator MORGAN. To the *modus vivendi*, or whatever it is—this agreement or circular.

This was agreed to by the Panama Government?

Mr. MAGOON. I suppose so.

Senator MORGAN. The agreement does not appear on this copy. This is the mere order of Secretary Taft?

Mr. MAGOON. That is all. The agreement of the Panama Government was manifested by a decree of the President of the Republic, as I remember it.

Senator MORGAN. Not by any act of the Panama Congress?

Mr. MAGOON. No, sir; the Panama Congress has not been in session since then.

Senator MORGAN. So that, as it stands, it was a decree on the part of the Panama Government, through its President, and it is an executive order of the President of the United States?

Mr. MAGOON. It is an executive order in both instances.

Senator MORGAN. Either Government or either President could put an end to that executive order by simply issuing another order revoking it, and if it is to stand as a permanent agreement, it occurs to me that we are bound either by an act of Congress, with a corresponding act on the part of the Congress of Panama, or by treaty, to bind both Governments to it.

Mr. MAGOON. Well, that is a question for the legislative branch to determine.

Senator MORGAN. But this is being executed?

Mr. MAGOON. Yes, sir.

Senator MORGAN. I will not stop to inquire into the terms of it any further than has already been done; but do you think that this order, in all of its provisions, is useful to the United States?

Mr. MAGOON. Yes, sir.

Senator MORGAN. And to Panama?

Mr. MAGOON. Yes, sir.

Senator MORGAN. You think it is a good arrangement?

Mr. MAGOON. I think it is mutually advantageous, as well as agreeable.

Senator MORGAN. This provides for a supply of money on the part of the Government of Panama under certain restrictions and limitations for the purpose of enabling the United States conveniently to carry on the operations of digging this canal.

Mr. MAGOON. Pardon me, Senator, but that is not in this order.

Senator MORGAN. That is in a different one?

Mr. MAGOON. Yes, sir.

Senator MORGAN. Not in this one?

Mr. MAGOON. No, sir.

Senator MORGAN. But that is in an agreement of the same sort?

Mr. MAGOON. Yes.

Senator MORGAN. Entered into between the President of Panama and the President of the United States?

Mr. MAGOON. Well, it was negotiated by a monetary commission that came up here, and it was signed—I think you have stated it right, Senator. I am not quite sure. I think it was agreed upon between the Isthmian Canal Commission and the Government of Panama.

Senator MORGAN. Yes.

Mr. MAGOON. Represented by a commission that came up here for the purpose of investigating the currency matter.

Senator MORGAN. That financial arrangement has received the approval of the President?

Mr. MAGOON. Of Panama?

Senator MORGAN. No; the approval of the President of the United States.

Mr. MAGOON. I think so. I think it was reported by Secretary Taft to the President.

Senator MORGAN. And approved by the President?

Mr. MAGOON. Yes; but as to whether his approval was put on the document, I am not sure of that.

Senator MORGAN. You were governor at the time that was executed, were you not?

Mr. MAGOON. No, sir. I was not a member of the commission, and had no connection with it whatever. That was in the spring of 1904.

Senator MORGAN. That was antecedent to this agreement?

Mr. MAGOON. Oh, yes, sir.

Senator MORGAN. So that this agreement did not disturb it in anyway?

Mr. MAGOON. No, sir.

Senator MORGAN. It did not modify the former agreement?

Mr. MAGOON. No, sir.

Senator MORGAN. That stands by itself?

Mr. MAGOON. Yes, sir.

Senator MORGAN. But that stands in the same attitude or relation; that is to say, that the Congress of neither Government has ratified it?

Mr. MAGOON. Not exactly, sir. My recollection of the situation is that the Panama Government authorized the executive branch of that Government to adopt a system of coinage, and in the exercise of that authority a monetary commission was sent to the United States and interviewed Secretary Taft, both as a representative of the Isthmian Canal Commission and also as the former governor of the Philippines, to find out what was a good system for them to adopt, and a system which would be satisfactory to the Isthmian Canal Commission, so that they could use it to pay their hands with,

Senator MORGAN. After this Commission acted, and after the system was devised, did the Panama Congress ratify it?

Mr. MAGOON. No, sir; it has not been in session since.

Secretary TAFT. The act of Congress of which you speak, then, was a mere authority to raise a commission to come here and negotiate and settle that business?

Mr. MAGOON. No; it was the authority conferred upon the executive branch of that Government.

Senator MORGAN. Well?

Mr. MAGOON. To establish a coinage system.

Senator MORGAN. To establish a coinage system?

Mr. MAGOON. Yes, sir.

Senator MORGAN. And thereupon he appointed a commission, on his part?

Mr. MAGOON. Yes, sir.

Senator MORGAN. Did the President of the United States appoint any commissioners?

Mr. MAGOON. No, sir.

Senator MORGAN. It was entirely a Panama commission?

Mr. MAGOON. Yes, sir.

Senator MORGAN. They came up here?

Mr. MAGOON. Yes, sir; they came up here and investigated the question.

Senator MORGAN. And negotiated with the Secretary of War?

Mr. MAGOON. Yes, sir.

Senator MORGAN. They came to a conclusion?

Mr. MAGOON. Yes, sir.

Senator MORGAN. Which has been embodied in the agreement of which you have just spoken, and which is already in the record, as I remember, now; but since that time, the Congress of Panama has not ratified the agreement that was actually made by the commission?

Mr. MAGOON. No, sir; that is my understanding.

Senator MORGAN. I believe you are uncertain as to whether the President of the United States has approved it or not?

Mr. MAGOON. The more I think of that, the more I am impressed with the idea that we had better get the document and find out what was done, because it occurs to me, now that I think back over it, that the commission conferred with Secretary Taft, and he gave them an expression of his views as to what would be a good system of coinage for the Panama Republic, so that they would have a coin which could be maintained at a fixed parity, and that the commission accepted the views which he expressed, and that, so far as the establishment of the system of coinage is concerned, it was exclusively the action of the Panama Government, in which none of the authorities of the United States participated, excepting to the extent of Secretary Taft's recommendations, or advice as to what, in his judgment, based on his experience, would be satisfactory to them and to the commission, who would use it.

Senator MORGAN. This agreement which the Commissioners consummated in some way has been put into execution?

Mr. MAGOON. Yes, sir.

Senator MORGAN. And is now in force and effect?

Mr. MAGOON. Yes, sir. They are coining those coins. I think you have possibly confused it with a subsequent agreement between the Commission and the private bankers for the supply of silver.

Senator MORGAN. The transactions are connected together and mutually dependent upon each other. I do not know about the dates, but they really constitute one transaction, do they not?

Mr. MAGOON. Oh, no. The agreement with the bankers came a year afterwards or more. It was when the Commission found that it could not get this silver, and the silver was not coming in fast enough, and that we had to go out and buy silver to order to pay the hands, that they entered into an agreement whereby the bankers were to supply the Commission with silver.

Senator MORGAN. Let me see if I can get a clearer comprehension of it, then; the first Commission settled the coinage question for Panama?

Mr. MAGOON. The Panama Commission, not the Isthmian Canal Commission. The Isthmian Canal Commission never had anything to do with the coinage system of Panama.

Senator MORGAN. I know.

Mr. MAGOON. There was a Panama Commission which investigated and determined upon a system of coinage for Panama. The Isthmian Canal Commission started to pay their hands with this silver, with the local currency; and finding it difficult to secure enough local currency for that purpose, entered into a subsequent arrangement which is known as the monetary agreement, if you wish, with the bankers.

Senator MORGAN. Who negotiated that subsequent agreement?

Senator HOPKINS. If you will let me interrupt you there, Senator Morgan, is not this a matter that was taken up by the Finance Committee of the Senate, and did not Secretary Taft make a full explanation of it there?

Senator MORGAN. That may be, but I want to understand it myself. I am a member of this committee, and I want to know about it. I am in the dark about it.

Senator HOPKINS. I was merely suggesting that in the interest of the economy of time. I think we have a full explanation that is printed in the hearings before that committee, which can be placed in the hands of every Senator.

Senator MORGAN. That does not preclude the examination of a new witness before this committee.

Senator HOPKINS. It does not preclude it if a Senator wishes to proceed with it, of course.

Senator MORGAN. This subsequent arrangement, then, was in consequence of the fact that the prior arrangement, which related to coinage in Panama, did not work well in supplying silver money, or money to the Isthmian Canal Commission?

Mr. MAGOON. No, sir; that was not it.

Senator MORGAN. What is the truth about that?

Mr. MAGOON. The system of coinage adopted by the Panama Government proved entirely satisfactory to the people; so satisfactory that the money disappeared. They abandoned the other circulating medium which they had and adopted that; and the commercial transactions of the citizens of Panama absorbed it; the business affairs absorbed it, and it became difficult for the Commission to get it in any considerable quantities to pay their men.

Senator MORGAN. It is that difficulty that I was trying to draw your attention to. It did become difficult?

Mr. MAGOON. Yes; there was a shortage. The money went into the interior.

Senator MORGAN. That was the result largely of the coinage law?

Mr. MAGOON. It was the result of the limited number of coins.

Senator MORGAN. It was the coinage law that provided a limited number of coins, was it not?

Mr. MAGOON. Yes.

Senator KNOX. The cause of the difficulty was the increased demand for coins, was it not?



Mr. MAGOON. Yes, sir.

Senator KNOX. I suppose the demand multiplied a hundred times?

Mr. MAGOON. Yes, sir.

Senator MORGAN. Then it became necessary, in the opinion of the Canal Commission, and at the time when you were governor, I believe—

Mr. MAGOON. No, sir.

Senator MORGAN. Before you became governor, then, it became necessary, in the opinion of the Canal Commission—

Mr. MAGOON. That agreement went to Panama, to the disbursing officer, on the same ship in which I went there as governor.

Senator MORGAN. It had been consummated before you became governor?

Mr. MAGOON. Just at the time.

Senator MORGAN. At the same time, or about the same time, that you became governor?

Mr. MAGOON. Yes, sir; I think it was signed by Mr. Shonts, as chairman of the Commission.

Senator MORGAN. And that new agreement became necessary in consequence of the disappearance of the coinage, under the law which had been orally agreed to, which made it inconvenient for the Isthmian Canal Commission to conduct its financial operations, paying its hands, and so on?

Mr. MAGOON. It made it inconvenient to pay its hands with that coin.

Senator MORGAN. Was there any other coin that you had to pay them with?

Mr. MAGOON. We had United States coin.

Senator MORGAN. Did you have enough of it?

Mr. MAGOON. We could get it, by bringing it in.

Senator MORGAN. What was the reason that it could not be brought in?

Mr. MAGOON. The reason for adopting the local coinage was that in Porto Rico and in Cuba and the Philippines our experience was that the introduction of the United States coinage simply doubled the price of everything. They wanted as many pieces of silver, or as many dollars, as they had theretofore been satisfied with in pesos. It presented a very serious problem in all three of those localities. That, I think, was the purpose of the Philippine coinage, and it was with exceeding difficulty that the bankers of the Philippines were induced to come in and undertake to promote the maintenance of the parity.

Senator MORGAN. Then, if the United States coinage, when it was brought into the Isthmus, doubled the price of everything, that was because the people who took it considered it worth twice as much as the Panama coin?

Mr. MAGOON. No, sir; they would not consider it worth twice as much.

Senator KNOX. They would consider it worth half as much as it was really worth?

Mr. MAGOON. They wanted as many silver dollars, worth a hundred cents, as they had been receiving of pesos, worth 50 cents. That was the point.

Senator MORGAN. Then it was necessary to cheapen the coin down there by coining it in the Panama form?

Mr. MAGOON. To get a coinage that was acceptable to them.

Senator MORGAN. That was by cheapening it, was it not?

Mr. MAGOON. No, sir; what was done was to give them a coin which was a very much better coin because it was stable. The Colombian coinage, as you know, fluctuated up and down in every way. The new coinage gave them a silver coin that, although a little larger than ours, was worth only half as much and with which they were satisfied, with the value of which they were familiar, and it served the purpose for which it was intended.

Senator MORGAN. Then, if I understand it, the first arrangement that was made for establishing a coinage law by agreement with the United States retired the Colombian silver?

Mr. MAGOON. Yes, sir.

Senator MORGAN. And whenever the American silver appeared in the Isthmus it retired the silver under the coinage law?

Mr. MAGOON. No, sir.

Senator MORGAN. It did not retire it?

Mr. MAGOON. No, sir.

Senator MORGAN. Well, what was the necessity for having any new arrangement, then?

Mr. MAGOON. The new arrangement to which you refer was the arrangement whereby the bankers of the Isthmus agreed to turn over to the Commission—that is, to our disbursing officer, upon his requisition—such sums, such numbers of Panamanian coins, as he would require.

Senator MORGAN. Well, did not the bankers and the commercial men in Panama control the situation there in regard to the value of the respective coins?

Mr. MAGOON. I think there was some apprehension that they might do it.

Senator MORGAN. Yes.

Mr. MAGOON. As is done elsewhere, where there is a fluctuating currency.

Senator MORGAN. Whether it was an apprehension there, or whether it was a fact that they did control the circulation of the coinage there, it then was supposed to be necessary to make an arrangement with the bankers of Panama for the furnishing of the coin?

Mr. MAGOON. I think "convenient" would be the word, rather than "necessary."

Senator MORGAN. Convenient, then.

Mr. MAGOON. For the convenience of the Commission.

Senator MORGAN. What per cent did we pay the bankers there for carrying this transaction through?

Mr. MAGOON. They do not charge us anything for giving us the silver, when we pay for it in United States currency.

Senator MORGAN. Does not the contract show that there was a percentage charged?

Mr. MAGOON. They accept our drafts.

Senator MORGAN. I understand so.

Mr. MAGOON. But they maintain the two coins at the exact parity of one gold dollar. That is to say, we have fixed the price of exchange, rather than paying a premium. They were charging our employees all sorts of prices for exchange, and the exchange would go up or down as they saw fit. If an employee had a draft to sell, the price depreciated.

Senator MORGAN. What percentage did you agree to pay those bankers for all the money they brought in there and paid over on the drafts of the disbursing officer?

Mr. MAGOON. My recollection is that we agreed to pay them \$1.01 for exchange—i. e., drafts—and three-quarters of 1 per cent when we received United States currency.

Senator MORGAN. If the Government of the United States is sovereign within that Zone, and has the authority to enact laws to carry its own coins in there, to regulate prices by managing the coinage circulation or money, what is the reason we can not do it?

Mr. MAGOON. We can do it.

Senator MORGAN. And we can save the percentage?

Mr. MAGOON. Well, there is the cost of transportation to be considered.

Senator MORGAN. Would that be as much as 1 per cent?

Mr. MAGOON. I do not know. I do not think it would be as much.

Senator MORGAN. You do not think it would be?

Mr. MAGOON. No, sir; but I think the principal objection is the fact that unless we were to manufacture a coin which would differ from anything which we have, and make it worth 50 cents on the dollar, we would pay double for everything.

Senator MORGAN. We manufacture these coins for the Panama Government here in New York, do we not, every one of them?

Mr. MAGOON. At Philadelphia.

Senator MORGAN. At Philadelphia?

Mr. MAGOON. Yes, sir.

Senator MORGAN. They supply the silver and we manufacture the coins?

Mr. MAGOON. We make them at the mint; yes, sir.

Senator MORGAN. And without any charge, seigniorage, or any other charge?

Mr. MAGOON. I think we do charge for that. I do not know about that. But we manufacture coins for a number of governments; I understand there is a regular fixed rate that they pay.

Senator MORGAN. I know; but all these Panama coins, silver coins issued down there, are manufactured in Philadelphia?

Mr. MAGOON. Yes, sir; they are manufactured in the mints of the United States.

Senator MORGAN. Why can not the Government save the profit for itself by making its own coins and going into that Zone and paying its laborers with them?

Mr. MAGOON. That is a matter for the legislative discretion to determine.

Senator HOPKINS. Would they not have to maintain some place down there to keep the coins in, and have somebody in charge of it, like a subtreasurer?

Senator MORGAN. I should think that would be so, but that is safer than to have it in the hands of those Spaniards there in Panama.

Senator HOPKINS. Would not that expense be quite as great as the commission that is charged under the present arrangement?

Senator MORGAN. I am looking at the safety of it and the control of it.

Senator HOPKINS. We had that out the other day before the committee, and I thought it was made very clear by the witness who testified that the Government was absolutely protected under the present system because the draft is drawn on the subtreasurer in New York, and that draft that is drawn on the subtreasurer is presented to the bank on the Isthmus, and the bank furnishes the money that is designated in the draft prior to getting the money on the draft, so that there is no chance for loss.

Senator MORGAN. My difficulty then was the same as it is now, and it has not been cleared up by any testimony that I have heard before this committee, and that is that these three or four banks that have a part in this arrangement, if they fail, are not accountable to our laws for their failure, and they can run off into the chaparral and take their money with them.

Senator HOPKINS. But they have none of our money under this arrangement.

Senator MORGAN. They have not any of it.

Senator HOPKINS. No. They have their own money, and when the Government official on the Zone presents a draft it is not drawn on the bank itself, but on the subtreasurer in New York City, and this money is advanced by the bank.

Senator MORGAN. Suppose one of those bankers refused to honor the draft?

Senator HOPKINS. Oh, well, that is another proposition.

Mr. MAGOON. The draft would be torn up.

Senator MORGAN. What would you do for money?

Senator KNOX. You would ship it down then.

Senator MORGAN. The point I make, and I think it is established, with all due deference to the opinions of other Senators, is that they could make a corner on us in silver, and the first thing we know they will do it.

Senator DRYDEN. Is not this the process, Governor Magoon: The disbursing officer goes to the bank with his draft upon the subtreasurer in New York?

Mr. MAGOON. Yes, sir.

Senator DRYDEN. He hands the draft in over the bank counter, and the bank immediately passes out the coins to him in payment of that draft?

Mr. MAGOON. Yes, sir.

Senator DRYDEN. That draft never leaves his possession until he gets the money from the bank?

Mr. MAGOON. No, sir.

Senator DRYDEN. So that loss on the part of the Government is a physical impossibility?

Mr. MAGOON. Absolutely.

Senator MORGAN. Unless the bank refuses to pay the check?

Mr. MAGOON. The Government has no money in that bank.

Senator MORGAN. If you do not get the money out of the bank on your check—if the bank refuses to pay it—you have no money, then, with which to pay your hands?

Mr. MAGOON. If all the banks involved in that agreement were to refuse to honor the drafts, that would be the result, if you did not happen to have any money on hand.

Senator MORGAN. Some of these banks have the right to withdraw, and, I suppose, if one has the right to withdraw, they all have the right, at any time, to terminate the agreement at any moment that they please, and they can absolutely paralyze the work there because you have no silver money provided to pay your hands.

Senator HOPKINS. But, Senator, men act on some reason, you know.

Senator MORGAN. I do not know that everybody does. [Laughter.]

Senator HOPKINS. What object would one of those banks have in refusing to honor a draft on the subtreasurer in New York? Absolutely none. Those banks are established there for the purpose of conducting business, and this is a part of their business that they get, and they make a certain profit there from it. From our standpoint that profit to the bank is smaller than the expense would be to the Government of maintaining a subtreasury on the Isthmus.

Senator MORGAN. I do not care about discussing the subject. I do not think I am permitted to discuss it as a forensic question, but I venture to make a suggestion about it. If those banks wanted to make a corner on silver upon that canal company, and stop their work, or to do any other mischief to them that they found it convenient to do for the sake of gain, they could fold their hands before them and say:

"We do not propose to let any silver go upon your draft at all. We propose not to take your draft at all. We expect to hold the silver here." I want to know what provision is made or what provision is possible for paying these hands on pay day, when these banks have closed their doors, and when they say: "We will make a corner upon you in regard to silver."

Senator KNOX. Cable the subtreasurer, and the money would be sent down there at once, instead of being placed to the credit of these Panama bankers on the drafts. That would meet that situation.

Senator MORGAN. My proposition is one that I think is very just and correct, and that is that the Government of the United States, finding that silver money is necessary to conduct this business—which is about the best silver argument I have ever heard made since Cleveland disappeared [laughter]—and an indispensable thing for the conduct of the business of this canal, ought to get over its shyness in regard to silver and coin enough of it to carry on that work and pay its silver men, and put in a subtreasury, if you please, down there, under lock and key, in good vaults, and have it there ready to pay, without having to go to the bankers of Panama and pay them a premium for furnishing us that silver.

Mr. MAGOON. Mr. Senator, will you let me call your attention to a matter right in that connection?

Senator MORGAN. Yes.

Mr. MAGOON. Having minted, say, 1,000,000 pieces of silver and paid it out, say in one month, where would we get the million pieces to pay the next month?

Senator MORGAN. Coin them.

Mr. MAGOON. And the next month?

Senator MORGAN. Coin them.

Mr. MAGOON. That is, you would coin as many pieces as were necessary, every month?

Senator MORGAN. I would if it was necessary to do it.

Mr. MAGOON. We have got to pay out every month for twenty years, if it takes that long, and we have to coin the silver with which we are to pay the men?

Senator MORGAN. They would get very tired of holding it.

Mr. MAGOON. How would we get it back?

Senator MORGAN. They would come and beg us to take it back.

Mr. MAGOON. What would we give them for it?

Senator MORGAN. Give them labor.

Mr. MAGOON. No—

Senator MORGAN. Give them provisions; give them anything—you mean the merchants?

Mr. MAGOON. No; I mean how would the Commission get the silver back?

Senator SIMMONS. Is not this what you mean: In this country, when money goes out of the Treasury, we get it back through the internal revenue, and through the custom-house, and so on?

Mr. MAGOON. Yes; in different ways.

Senator SIMMONS. And there is nothing like that down there?

Mr. MAGOON. No, sir.

Senator SIMMONS. And every cent that goes out stays out permanently?

Mr. MAGOON. The way we get it now is to issue drafts, and the people who want the drafts happen to be the bankers, and they come and bring their money and take our drafts, and we take their money.

Senator MORGAN. I am not much of a financier, and I feel a great deal of modesty and a little trepidation in giving any opinion at all about how the thing could be done, but I should think that if you would establish a lot of banks of deposit down there—savings banks—you could induce these people to put their money in there, all that they did not find necessary to buy commissaries, and store it up, and if they wanted to send it to their families then the Government of the United States could issue a check, if you please, or a Treasury warrant, or anything like that, that would be good for gold anywhere in the world, and send it out of there, and take this matter of transacting the business of your employees into your own hands and not leave it to those Spaniards. I venture that opinion. It is easy enough to do, in my judgment. Maybe I am too ignorant to speak of such things, but it is a plain, common-sense proposition, and I profess to be familiar with a good many plain, common-sense propositions.

Senator HOPKINS. If you will permit me, Senator Morgan.

Senator MORGAN. I will.

Senator HOPKINS. I listened to you this afternoon on the floor of the Senate with a good deal of interest when you were describing the character of people that work down on the Zone there.

Senator MORGAN. I did not describe them.

Senator HOPKINS. Perhaps it was Senator Money who said that a banana and a cigarette was all the men wanted.

Senator MORGAN. It was not me. I merely said to the Senate that every witness of any consequence who has been before us said that

they find the eight-hour law one of the most serious embarrassments to the conduct of the work on the canal. That is what I said, and I only begged them not to lay their hands on the subject until this committee makes a report. That is all I said, too.

The CHAIRMAN. In all these money transactions down there, I take it, as is the case in this country, no money passes from the bank until the draft is presented; and the draft is not presented until the money is ready to go over the counter?

Mr. MAGOON. No, sir.

Senator MORGAN. If that is so, why do we pay 1 per cent to bankers in Panama to transact this business?

The CHAIRMAN. I think the expense of maintaining a subtreasury or a government depository on the Isthmus would be found very much greater than the small expense that is now being paid there at the present time. I do not know what the future may develop.

Senator MORGAN. I would rather pay out a little money by way of insurance than to trust it in the hands of those Spaniards.

The CHAIRMAN. There is no risk in this, the way the business is transacted.

Mr. MAGOON. They are the ones that do the trusting. They buy our drafts and trust us.

The CHAIRMAN. They trust our Government?

Mr. MAGOON. Yes, sir. I might mention that some one of them asked what would happen if the boat with the draft, on its way from Colon to New York, should be lost, and who would give them another draft, and what they would have to do. They were quite alarmed at the prospect that it would take an act of Congress to reimburse them for their loss.

The CHAIRMAN. It is a serious proposition.

Senator KNOX. Do they not issue their drafts in duplicate?

Mr. MAGOON. No, sir.

Senator KNOX. They should do that, as a matter of protection.

Mr. MAGOON. I think not, except in the Navy.

Senator KNOX. That is the old method of transmitting exchange—issuing double bills.

Mr. MAGOON. I do not think it is permitted.

Senator MORGAN. I will finish by asking you one question, and that is whether this last financial arrangement, or any one preceding it, has ever been ratified as it was made, by the Congress of Panama or by the Congress of the United States?

Mr. MAGOON. I think that it has been reported. I know that it has been reported to the Congress of the United States.

Senator MORGAN. Reported?

Mr. MAGOON. Yes. I think that Secretary Taft communicated—

Senator MORGAN. A report does not amount to much here. There is a million of them on the files in this Capitol now, I suppose, that have never been acted on and to which no attention has ever been paid.

Mr. MAGOON. It was brought to the attention of Congress, and undoubtedly when the Panaman Congress comes together the President of Panama will communicate it to that Congress.

Senator ANKENY. When do you understand this monetary arrangement, as you are pleased to call it, will expire—when does it die?

Mr. MAGOON. It expires next April.

Senator MORGAN. Or, at the option of either party, at any time?

**Mr. MAGOON.** Yes.

Senator MORGAN. They can put an end to it to-morrow!

**Mr. MAGOON.** No. My recollection is that what we refer to as the "bankers' agreement" was to continue until the 1st of April.

Senator DRYDEN. If the event which Senator Morgan has suggested should occur, and these bankers should create a corner upon silver, that could never happen but once, could it?

**Mr. MAGOON.** I should think not.

Senator DRYDEN. In all human probability that could only happen once—that would be the end of it?

**Mr. MAGOON.** Yes, sir.

Senator DRYDEN. The consequence would be that, for a little possible temporary gain, these bankers would destroy a business which they have probably taken a good deal of pains and spent some years, some of them, in building up. In other words, they would commit suicide for a very slight temporary gain?

**Mr. MAGOON.** Yes, sir; that would be my estimate of it, sir.

Senator DRYDEN. With regard to the Government coining this money and putting it out direct, it seems apparent that the Government would continuously have to put out, month after month and year after year, so long as this great work goes on, its coinage of money, and it would have no way of getting that money back into its possession, because the Government is not a commercial agent. On the contrary, by getting this money from the banks, it comes out of the banks, passes to the employees, and through them passes to the merchants, and from the merchants back into the banks, so that there is a constant flow from the banks through the community and through the community back again into the banks, thus keeping up that constant circulation by a natural law of business. Is not that the situation?

**Mr. MAGOON.** Yes, sir; that is the working of it.

Senator MORGAN. If a bank is necessary to keep up this circulation of blood for the vitality of the government, I suggest that the bank be established inside of our own territory, so that we can prosecute a defaulting banker or thief, and put him in the penitentiary if he violates his duty. Why not?

Senator HOPKINS. The only transaction we have with him is when the draft on the subtreasury at New York is presented over his counter. We do not have any other dealings with the banks there.

Senator MORGAN. If he refuses to pay it, you have no money. It is money you need, I understand, to pay your hands.

The CHAIRMAN. I think Senator Morgan has finished with his line of questioning, so that it would perhaps be well for you to proceed to discuss some of the other subjects, Mr. Magoon.

Senator MORGAN. I am searching for information and knowledge about it. I do not know much about it myself.

The CHAIRMAN. I do not know just where you were when you were diverted by the questions which have been asked you.

**Mr. MAGOON.** I was just trying to remember where I stopped.

Senator MORGAN. If no other Senator has any questions to propound I want to commence by asking something about an oil pipe line that is proposed to be established down there. Do you know anything about that?



Mr. MAGOON. I do not, excepting what I have heard. I have had no official information.

Senator MORGAN. No steps have been taken by any company to establish a pipe line for oil there?

Mr. MAGOON. Not that I know of. I have heard, since I came here, that application had been made here; but I do not know anything of it, and I have not had an opportunity to investigate it.

Senator MORGAN. There are some outside plants there which seem to be in some way or other—I do not know just how—connected with the operations of the Government—a supply company, an ice company, an electric company, and an improvement company, I believe. Are there such companies in operation down there?

Mr. MAGOON. There is a company called the American Development Company, I think.

Senator MORGAN. Yes.

Mr. MAGOON. But that is nothing more than a mercantile business, so far as I know.

Senator MORGAN. Has it any connection with the Government at all?

Mr. MAGOON. Absolutely none, that I know of.

Senator MORGAN. Does it not supply anything to the Government?

Mr. MAGOON. Not that I know of. They may purchase something from it. There is a bank there—one of the banks that is involved in this agreement—that has the word improvement in its title; it is called "The American Trade Development Company."

Senator MORGAN. That company is under the patronage or in some way involved in the business of a bank?

Mr. MAGOON. Yes, sir.

Senator MORGAN. Is it the Ehrmann Bank?

Mr. MAGOON. No, sir; it is not the Ehrmann bank. There is the International Banking Company there, that is an American concern, the Ehrmann, and this bank.

Senator MORGAN. The International Company does nothing but a banking business?

Mr. MAGOON. That is all.

Senator MORGAN. And these others do other business?

Mr. MAGOON. They are old established concerns that have all sorts of business connections.

Senator MORGAN. They are merchants and bankers?

Mr. MAGOON. Yes, sir; very largely.

Senator MORGAN. They control the trade and the finances of the Isthmus?

Mr. MAGOON. To a degree they do.

Senator MORGAN. Do they not do it almost absolutely?

Mr. MAGOON. No, sir; I would not say so. There are a good many concerns down there, very large ones, that they are not behind nor engaged in. I think probably the largest mercantile establishments in the city are entirely independent of any of those banks.

Senator MORGAN. Are not these three banks in Panama with whom we have this financial dealing concerned also in general merchandise?

Mr. MAGOON. I think all of them are, excepting the International Company.

Senator MORGAN. All but the international?

Mr. MAGOON. Yes. I would say, in my opinion, that the other three are. The international is not and the other three are.

Senator MORGAN. That is, they keep large stocks of goods, and sell them out to the people there at retail and wholesale, and so on?

Mr. MAGOON. They do not keep them in the bank. They are interested in other concerns.

Senator MORGAN. They keep them under other roofs, but it is all one establishment? So that practically these three banks with which we have this financial agreement control very largely the commerce on the Isthmus?

Mr. MAGOON. I would not say very largely; no, sir. I would say that they are engaged in other business, but I would not say that they controlled it, even very largely.

Senator MORGAN. They are large dealers, are they not?

Mr. MAGOON. Yes, sir.

Senator MORGAN. And to that extent they have a large control, have they not?

Mr. MAGOON. To the extent of their business, whatever it is. Relatively, I would not say it is a large control.

Senator MORGAN. But they are large dealers, and they sell goods out to the laborers and get the money that we pay them for their labor?

Mr. MAGOON. Yes, sir.

Senator MORGAN. And deposit it in their bank?

Mr. MAGOON. Yes, sir.

Senator MORGAN. And we get that money from them by paying 1 per cent for it, and then it is turned back, and the operation goes on—the wheel keeps turning?

Mr. MAGOON. Yes.

Senator MORGAN. About what would the profit amount to in the course of a year, according to your estimate?

Mr. MAGOON. I would have to make an investigation in order to determine that.

Senator MORGAN. It would be quite a handsome business, would it not?

Senator KITTREDGE. What do your pay rolls amount to, Governor Magoon?

Mr. MAGOON. They fluctuate very largely, but I should say, taking them on the basis of half a million, that the profit would be whatever the percentage would be on that for a year.

Senator KNOX. Half a million monthly or semimonthly?

Mr. MAGOON. Monthly.

Senator KNOX. That is six millions a year.

Senator MORGAN. Have you ever heard of any of these banks who have business relations with the Isthmian Canal Commission under the agreement that has been referred to collecting silver money by the sale of goods and putting it into their vaults and selling it to the United States at 1 per cent premium?

Mr. MAGOON. No; I have not.

Senator MORGAN. Would not such an operation as that be entirely practicable under the arrangement that they speak of?

Mr. MAGOON. I think not, except when they are selling it to us as drafts.

Senator MORGAN. The International Bank has no way of drawing silver money into its coffers except by purchasing it in the market, has it, or else from deposits?

Mr. MAGOON. From deposits and selling drafts.

Senator MORGAN. These Jamaican negroes and others do not keep bank accounts in these banks, do they?

Mr. MAGOON. Not very much; some of them do.

Senator MORGAN. Few of them make deposits?

Mr. MAGOON. Yes.

Senator MORGAN. So that the silver money that is brought into the hands of the paymasters of the United States through these banks is accumulated by them through the business they conduct of a commercial character with these people?

Mr. MAGOON. It is collected by them as are the ordinary revenues or the ordinary moneys of the bank.

Senator MORGAN. That is to say, they sell them goods, get the money, put it on deposit, sell the money to us, and they go back again in the same way, and they spend it over the second time and the third time and the fourth time?

Mr. MAGOON. It could be done that way.

Senator MORGAN. It could be done?

Mr. MAGOON. Certainly.

Senator MORGAN. Have you any suspicion, Governor, that there is anything of that sort, which is of a profitable character which could be done and which is not done or will not be done?

Mr. MAGOON. I presume they are doing whatever they can to promote their best interests.

Senator MORGAN. They naturally would.

Mr. MAGOON. Yes.

Senator MORGAN. They are not inattentive to their business?

Mr. MAGOON. No, sir; they are shrewd business men.

Senator HOPKINS. And they are not down there for their health.

Senator MORGAN. Or for the health of the United States, either.

The CHAIRMAN. These merchants and banks have been there for a long time, have they not?

Mr. MAGOON. Yes, sir.

The CHAIRMAN. The only new concern is this International Banking Corporation.

Mr. MAGOON. I think this American Trade Development Company is a recent concern.

The CHAIRMAN. The others have been there for forty or fifty years.

Mr. MAGOON. Yes, sir.

Senator MORGAN. They are putting up new companies for the purpose of supplying the Government of the United States with things that are supposed to be necessary, such as electricity and ice, and so on.

Mr. MAGOON. They are not.

Senator MORGAN. They are not putting them up for that purpose!

Mr. MAGOON. No, sir. I think the Ancon Hospital is taking ice from the new ice plant down there, but aside from that we are getting it from Panama, and the electricity we use is generated by the Panama Railroad plant at La Boca.

Senator MORGAN. So that the Government is really in competition with these men in their work?

Mr. MAGOON. Yes, sir; and they complain of that.

Senator MORGAN. They complain of it?

Mr. MAGOON. Yes, sir. They say, "Why not take our electricity?"

Senator MORGAN. Yes. Well, are there any influential men who are connected with the Isthmian Canal or with the railroad who are interested in this business over there in Panama?

Mr. MAGOON. I think that the general counsel for the Panama Railroad is a stockholder in the ice plant.

Senator MORGAN. Yes.

Mr. MAGOON. I have simply heard that.

Senator MORGAN. And he is one of the men who is pressing upon the Government of the United States not to go into competition?

Mr. MAGOON. I have never heard anything of that sort from him.

Senator MORGAN. Or pressing the claims of this company upon the Government of the United States for patronage?

Mr. MAGOON. I have never heard anything like that from him.

Senator MORGAN. Well, what is he doing?

Mr. MAGOON. So far as I know, he is not doing anything in those matters. The man who has been to see us about it is Mr. Brandon, who was, I think, the president of the company.

Senator MORGAN. And the president of the bank?

Mr. MAGOON. Yes; but the ice plant and the electric light company is not the by-product of a bank.

Senator MORGAN. But it is connected with it?

Mr. MAGOON. It is connected with it in that men connected with the bank have stock in the ice and electric light company. That is an American corporation.

Senator MORGAN. Mr. Brandon has been to you to press upon you the demand that you take his electricity and his ice?

Mr. MAGOON. Yes, sir; he has asked if we would not do it, and has urged us to patronize his establishment.

Senator MORGAN. Are there other companies down there engaged in other lines of business that are making these same demands upon the Government or upon the Isthmian Canal Commission?

Mr. MAGOON. Every concern down there is anxious to sell its product to us; but I have referred to the only thing in the way of public utility. Of course if a man has a dozen eggs to sell, or a couple of fowls, he will come to our houses or to the hospitals, where they frequently sell such things.

Senator MORGAN. Do not the merchants and dealers in Panama insist that the Government of the United States, through its Isthmian Canal Commission and its railroad managers, shall take from the people of Panama food supplies of different kinds, rather than to import them for the use of their own employees?

Mr. MAGOON. Some of the merchants do. I do not think it would be accurate to say that the people of Panama do, because the people of Panama were, I think, very largely in favor of the United States Government establishing its own commissary.

Senator MORGAN. They wanted competition?

Mr. MAGOON. Yes; they wanted an increased supply of food.

Senator MORGAN. They wanted an increased supply, which of course reduces the prices?

Mr. MAGOON. Yes, sir.

Senator MORGAN. And the merchants wanted it just the other way?

Mr. MAGOON. I do not think they wanted to reduce the supply, but they wanted to keep the business. They wanted it for themselves; and there does prevail down there the idea of making a large profit out of a small output instead of a small profit out of a large output.

Senator MORGAN. Has the Government of Panama approached you in any way for the purpose of getting that sort of an arrangement established?

Mr. MAGOON. What sort of an arrangement?

Senator MORGAN. An arrangement by which you would cease to be in competition with these merchants for any kind of supplies that they are producing.

Mr. MAGOON. The Panama Government has not. The Panama Government was advised of our intention to establish commissaries, and the Secretary of State wrote a letter to the Commission saying that we were entitled to do so, and that his Government, while it appreciated that it would cut down its revenues, had no objection to make, and for us to go ahead and do it. Then the merchants of the city made a commotion in respect of it, and the Panama Government asked us if we would meet a committee of the merchants and talk over the situation; that is, they tendered their kindly offices for a committee of the merchants to meet Mr. Stevens and me; and we met and talked it over, and told them that we must insist upon maintaining a commissary; and that ended it.

Senator KNOX. I know, of course, that we want to get at just what the facts are, Senator Morgan, but if you will permit me I would like to call the governor's attention to the testimony of Mr. Benson. Mr. Benson testified that the charge made by the bankers down there for furnishing money against your drafts was one-quarter of 1 per cent.

Mr. MAGOON. Did I say 1 per cent?

Senator KNOX. You said 1 per cent, and he said that it was less than the cost of expressage and the cost of insurance of the actual currency.

Mr. MAGOON. I think we had better relegate that to the agreement itself.

Senator KNOX. Benson would likely know about that, would he not?

Mr. MAGOON. Yes; I should think Benson should know exactly.

Senator KNOX. You would not, in the light of this testimony of Benson's, adhere to your statement that it was 1 per cent?

Mr. MAGOON. No.

Senator KNOX. That is all I wanted.

Mr. MAGOON. I think the 1 per cent that I referred to was what was charged for exchange.

Senator KNOX. This is not a matter of exchange. This is a matter of your selling them your draft there, on the spot, for one-quarter of 1 per cent.

Senator KITTREDGE. This feature is covered by the contract, is it not?

Mr. MAGOON. Yes, sir.

Senator KITTREDGE. By its terms it provides the exact rate of exchange that may be charged?

Mr. MAGOON. Yes, sir.

Senator MORGAN. Was this abandonment of the demand on the part of the merchants of Panama for these indulgences or allowances, of which you have been speaking, a recent event?

Mr. MAGOON. Oh, it took place very shortly after our arrival there. It was along in July, I think.

Senator MORGAN. Did you say that the Secretary of State consented to having the arrangement made?

Mr. MAGOON. No; we told him that we were going to do it, and he said that he understood perfectly that we had the right to do that under the treaty.

Senator KITTREDGE. You mean the secretary of state of Panama?

Mr. MAGOON. Yes, sir.

Senator MORGAN. I am talking about our Secretary of State. I misunderstood you. I thought you said that he had something to do with it?

Mr. MAGOON. No, sir.

Senator MORGAN. You are the minister to Panama?

Mr. MAGOON. Yes, sir.

Senator MORGAN. And you are the governor of the Zone?

Mr. MAGOON. Yes, sir.

Senator MORGAN. And you are a member of the Canal Commission?

Mr. MAGOON. Yes, sir.

Senator MORGAN. So that you have three distinctive powers in respect to this great work down there?

Mr. MAGOON. Two, properly speaking; as to Commissioner and governor, I do not see any line of distinction.

Senator MORGAN. Have you any powers as governor that are not within the control of the Commission?

Mr. MAGOON. I think that I have none that are not within the control of the Secretary of War and the Commission.

Senator MORGAN. I mean the Commission through the Secretary of War, or the Secretary of War through the Commission?

Mr. MAGOON. Yes.

Senator MORGAN. You have no powers of that sort except such as they authorize you to exercise?

Mr. MAGOON. No, sir.

Senator MORGAN. As governor you do not go to the Commission to get all your official acts approved, do you?

Mr. MAGOON. I go to the Secretary of War in matters political and to the Commission in others.

Senator MORGAN. You go to the Secretary of War?

Mr. MAGOON. Yes.

Senator MORGAN. Suppose those acts relate to transactions with the people of Panama; who would you go to then?

Mr. MAGOON. It would depend on what it was. If it involved the work of construction—something, for instance, like the establishment of commissaries—matters relating to the exercise of the powers of the Commission, I would go as governor; matters which affect the political relations between the two Governments would go through the legation.

Senator MORGAN. They would go through the Secretary of State?

Mr. MAGOON. Yes.

Senator MORGAN. Suppose it should unfortunately turn out that the Secretary of War and the Secretary of State did not agree as to

the policy that ought to be pursued down there; who would you obey?

Mr. MAGOON. I should have to wait until that contingency arose before I answered that question.

Senator MORGAN. According to your estimate of your duties, can you serve two masters, giving preference to one, or dividing responsibility between the two?

Mr. MAGOON. I think there is a line which distinguishes between the two positions and that a man occupying those places can follow.

Senator MORGAN. Will you be good enough to state it?

Mr. MAGOON. That which relates to and involves the political relations between the two Governments is within the jurisdiction of the Department of State. That which relates to the work of constructing the canal and the local government of the Canal Zone is within the jurisdiction of the War Department.

Senator MORGAN. Then if you should be in doubt as to whether the particular act you were about to perform, or expected to perform, was under the one jurisdiction or the other, from whom would you get instructions?

Mr. MAGOON. I undoubtedly should communicate it to both.

Senator MORGAN. To both?

Mr. MAGOON. Yes.

Senator MORGAN. And if they did not agree you would be "knocked out?"

Senator KNOX. If he could not do the thing as governor, he could do it as commissioner.

Senator MORGAN. Yes; that is to say, he can exercise, at his discretion, twofold powers. That is what it means. He can select between them which one he shall serve.

Senator KNOX. That seems to me to be a perfectly fair proposition. He has different powers by virtue of his different offices.

Senator MORGAN. Yes; he can confer with either and take authority from either.

Senator KNOX. There might be a case of doubt where he would resolve it one way or the other, according as his own opinion might direct.

Senator MORGAN. Well, it is the old Biblical question about serving two masters. I do not know how a man is going to do it.

(The committee thereupon adjourned until Monday, February 12, 1906, at 2 o'clock p. m.)

# ISTHMIAN CANAL.

---

COMMITTEE ON INTEROCEANIC CANALS,  
UNITED STATES SENATE,  
*Washington, D. C., Monday, February 12, 1906.*

The committee met at 2 o'clock p. m.

Present: Senators Millard (chairman), Kittredge, Hopkins, Ankeny, Morgan, Taliaferro, and Simmons.

## STATEMENT OF CHARLES E. MAGOON, ESQ.—Continued.

The CHAIRMAN. You may proceed, Mr. Magoon.

Mr. MAGOON. Very well, sir.

On reviewing the proceedings of the last session, I got the impression that some members of the committee entertain the belief that the Commission pays the banks of Panama who have signed the bankers' agreement some sums of money or a percentage on the Panamanian silver which the banks turn over to the Commission for use in paying the laborers. That is not the fact. I testified that it was not; that we did not pay them a percentage, and it is something that is so well known with us on the Isthmus that the subsequent discussion about the rate that we did pay, I thought, was understood to be as to the United States currency which they turn over to us.

I wish to correct my testimony respecting the per cent that we pay for the United States currency. It is three-quarters of 1 per cent, instead of 1 per cent, as I testified. The agreement provides for the payment of 1 per cent for exchange. Of course, the United States having use for drafts to send to the United States, sends drafts on its own subtreasury. The Panama Government and the Panama Railroad would have occasion to use exchange, and would apply to the banks under that agreement and get it for 1 per cent.

Senator TALIAFERRO. That is merely exchange that you pay on the draft, is it?

Mr. MAGOON. Yes, sir. If the commission were to go to a bank to buy a draft to send to New York, they would pay 1 per cent.

Senator TALIAFERRO. Well, in getting the American money for use in the Zone you pay the banks three-quarters of 1 per cent to supply that?

Mr. MAGOON. To get United States money; yes, sir.

Senator TALIAFERRO. I say United States currency?

Mr. MAGOON. Yes, sir.

Senator TALIAFERRO. Do you draw on the subtreasury in anticipation of your wants or only as you need the currency?

Mr. MAGOON. Only as we need the currency.



Senator TALIAFERRO. You keep no credit balance in these banks?

Mr. MAGOON. None whatever.

Senator MORGAN. Then you pay the three-quarters of 1 per cent, or the 1 per cent—I do not yet know which it is that you pay—to the bank for discounting the check upon the subtreasury?

Mr. MAGOON. For giving us the cash; yes, sir.

Senator MORGAN. Yes.

Senator TALIAFERRO. You mean that you go in there with a treasury draft, for \$500 or for \$5,000, and they give you United States currency for that draft and charge you three-quarters of 1 per cent?

Mr. MAGOON. Yes, sir.

Senator TALIAFERRO. That is the exchange charged for cashing the draft?

Mr. MAGOON. Yes, sir.

Senator MORGAN. Is it three-quarters of 1 per cent, or 1 per cent?

Mr. MAGOON. Three-quarters of 1 per cent. On the other hand, if we went in there with Panamanian silver, and wanted to buy a draft on New York, we would pay them 1 per cent.

The CHAIRMAN. What circumstances could arise under which the Commission would ever want exchange on New York?

Mr. MAGOON. I can not think of any.

The CHAIRMAN. I can not see that the necessity for that would ever arise.

Mr. MAGOON. No, sir; because our own subtreasury drafts pass current the world over. We would not, but the Panama Government would, and the Panama Government is a party to that agreement. That is why the 1 per cent is put in there.

The CHAIRMAN. Suppose one of your clerks or one of your laborers went into the bank to buy a draft; what would he pay, 1 per cent?

Mr. MAGOON. The agreement is that they may be required to pay up to 3 per cent silver; but in actual practice it has been at times nothing, and at other times 2 per cent, and sometimes as high as 3 per cent.

Senator TALIAFERRO. Was that under this monetary arrangement?

Mr. MAGOON. Under this bankers' arrangement.

Senator TALIAFERRO. You pay, primarily, three-quarters of 1 per cent to get this American currency placed to your credit?

Mr. MAGOON. To get the cash delivered to us.

Senator TALIAFERRO. To get the cash delivered to you?

Mr. MAGOON. Yes, sir.

Senator TALIAFERRO. Then you turn that cash over to an employee of yours in one of the offices down there, and if he desires to transmit it home the bank is authorized to charge him as high as 3 per cent for American exchange?

Mr. MAGOON. Yes, sir; that is, the man gets his salary and goes to the bank—

Senator TALIAFERRO. Yes. Could not that man be paid in Government drafts?

Mr. MAGOON. It could be done.

Senator TALIAFERRO. The question is, Ought it not to be done? If a man wants to send his money home to his family, ought the banks to be permitted to charge him 3 per cent?

Mr. MAGOON. I think so, Senator. I do not see any objection to it. He derives a very substantial benefit in the preserving of the parity; and if we had no agreement, why the rate would run up and down as

they saw fit. In French times it ran as high as 65 to 75 per cent for the stable currency of France.

Senator TALIAFERRO. I want to know why you can not pay those employees who wish to send their funds to this country in Treasury drafts and save the Government the premium or discount charged by the banks to the Government and the premium or discount charged by the bank to the employee who wishes to remit his money home?

Mr. MAGOON. I said, Senator, that that can be done. It is a question of policy entirely.

Senator TALIAFERRO. Is there any objection to that policy?

Mr. MAGOON. The only objection is to a return to the days of fluctuation in exchange. A man, for instance, might at the time he was paid prefer to have the cash. Subsequently he might desire to remit home, not necessarily to his family, but to buy a suit of clothes, or to buy a pair of shoes, or something of that sort; and he would find that the exchange was 40 or 50 cents.

Senator KITTREDGE. What amount of American money do you use monthly in the payment of bills on the Isthmus?

Mr. MAGOON. I do not know.

Senator KITTREDGE. Who can tell us?

Mr. MAGOON. You know the auditing and the disbursing officer are under the chairman of the Commission. It does not belong to my department, and I am stating and testifying not as the head of the department that controls these things, but from knowledge which I acquire by residence down there, knowing the methods and knowing the agreement.

Senator KITTREDGE. Do you know how much each month the Government pays for American moneys?

Mr. MAGOON. No, sir; I do not. The record is here in Washington, I think, in the Washington office, and could be supplied upon call.

Senator HOPKINS. You have no knowledge of the amount of money that is sent from the Isthmus to the States by the employees down there?

Mr. MAGOON. No, sir. I know that the number of registered letters is constantly increasing, and I take it they mean either money or articles of value being returned to the States. You will recall that there are six aliens to one white American in our employ down there, so that all the money that comes out on drafts does not come to the United States.

Senator MORGAN. Do you mean there are six aliens to one American among the gold men or the silver men?

Mr. MAGOON. The whole force.

Senator MORGAN. There are six aliens employed to one American?

Mr. MAGOON. Yes, sir.

Senator MORGAN. But the salaried men, who are in office, are almost exclusively Americans?

Mr. MAGOON. Almost exclusively; yes, sir.

Senator MORGAN. They are the men that would need exchange to send their money home to their families?

Mr. MAGOON. They would need it; but there are also the Jamaicans and the Barbadians and the others from the West Indies, and they send large quantities of their money home.

Senator MORGAN. When there is due an American employee of this canal say \$100, you draw the money out of the bank upon a warrant or check on the subtreasurer at New York, for which the bank

charges you three-quarters of 1 per cent, and you turn it over to him instead of furnishing him a check on the subtreasury, and he goes to the banker, who, by contract with the Commissioners or with the Government of the United States, has the right to charge him 3 per cent for sending that money back to his family; that is  $3\frac{1}{4}$  per cent that the bank has the advantage of?

Senator TALIAFERRO. Where it all might be avoided by giving him——

Senator MORGAN. By giving him a check on the subtreasury at New York.

Senator TALIAFERRO. Exactly.

Mr. MAGOON. Excepting that the difficulty of making out the checks, as you know, would be something enormous. For instance, when the pay car goes out we would have to supply an office force to ask the men the questions: "How much do you want? How much in cash and how much in check on New York?" And the expense to the Government would be very great. The Government could much better afford to pay the bankers to write these drafts and to transport the money, and that is what we do.

Senator MORGAN. Still, if you pay an employee \$100 to-day in money and he says "I want exchange on New York" he can come back to-morrow and get his exchange and turn in the money?

Mr. MAGOON. But he is out in a camp, say, near Alhajuela or somewhere else.

Senator TALIAFERRO. But there are very few of those gold men in the camps, are there not?

Mr. MAGOON. There are some in every camp.

Senator TALIAFERRO. But they constitute a very small percentage, do they not?

Mr. MAGOON. Well, yes. But there are others beside the Americans who will accept American money——

Senator MORGAN. I want to know if this financial arrangement with the banks was made in conformity to their demand or whether it was a demand of the United States upon them, or a proposition of the United States to them that they enter into such an agreement?

Mr. MAGOON. I do not know. The agreement was made before I was governor.

Senator MORGAN. That was made with the International Bank, was it not, at first?

Mr. MAGOON. The International Bank signed it.

Senator MORGAN. Originally it was made with that bank, was it not?

Mr. MAGOON. No; I think not.

Senator MORGAN. Well, I feel quite sure that it was.

Mr. MAGOON. No; the International Bank made a proposition that if we would deposit a certain amount of money with the International Bank in New York City, their home institution, they would take over the job of supplying us with the local silver.

Senator MORGAN. At what rate per cent?

Mr. MAGOON. I do not know. It was before I went on the Isthmus, but I know that there was such an offer made.

Senator MORGAN. Was there not such an agreement made, and was it not carried into operation?

Mr. MAGOON. No, sir.

Senator MORGAN. For a considerable time?

MR. MAGOON. No, sir. The reason why it was not done upon their request was that the Treasury of the United States said they could not deposit the money there.

Senator MORGAN. At first the agreement was with the International Bank, then?

MR. MAGOON. No, sir. I am quite sure, Senator, that there never was an agreement with the International Bank alone to get it.

You were asking at whose demand it was entered into. I know, from conversation, from the general knowledge which one would acquire there, that at first the Commission got its money by going into the banking business and selling exchange; that was objected to, and that led to the conference which resulted in this agreement.

Senator MORGAN. Who objected to that arrangement?

MR. MAGOON. I think the local bankers objected.

Senator MORGAN. The objection came from the State of Panama through the banks?

MR. MAGOON. From official sources, do you mean?

Senator MORGAN. Yes.

MR. MAGOON. I think not. I never heard of that.

Senator MORGAN. It came from the bankers doing business in Panama, acting under Panama charter?

MR. MAGOON. Yes, sir.

Senator MORGAN. They demanded that that business of selling exchange by the Government of the United States should stop?

MR. MAGOON. Not to my knowledge. I never knew of such a demand as that.

Senator MORGAN. I thought I understood you to say that it was on their objection?

MR. MAGOON. I said that there was objection.

Senator MORGAN. Yes.

MR. MAGOON. And that led to this arrangement; but as to any demand, I heard nothing of that.

Senator TALIAFERRO. Is there anything in this arrangement which prevents the Government from paying its employees, its own citizens, in checks on the subtreasury?

MR. MAGOON. Well, I see that the arrangement has been before the committee (referring to pamphlet containing the agreement in question), and it is—

Senator TALIAFERRO. Are you familiar with it?

MR. MAGOON. Yes.

Senator TALIAFERRO. Then please answer my question.

MR. MAGOON. My understanding is that the agreement is that they shall not issue exchange.

Senator TALIAFERRO. That you shall give those banks a monopoly of the banking business at these fixed rates?

MR. MAGOON. Well, that the Commission will not go into the banking business.

Senator TALIAFERRO. And that the Government can not pay its own employees in its own checks?

MR. MAGOON. That is the interpretation of the agreement.

Senator TALIAFERRO. That is your interpretation of the agreement?

MR. MAGOON. Yes, sir.

Senator MORGAN. What is the probable profit per month or per annum to the banks under this arrangement?

Mr. MAGOON. As I say, I can not tell. It is a matter which is not in my department. What I get in relation to this matter is what I get from reading this document and from the general knowledge which comes to a person on the Isthmus. I could not say.

Senator MORGAN. It is a very considerable sum, is it not?

Mr. MAGOON. Well, relatively, of course, the great expenditures made by the Commission are paid from the Washington office. The largest sums down there are paid in silver, for which we do not pay the bankers anything. No; what it is as between the United States currency and the silver I do not know, but I should say the tendency now is in favor of the United States currency. But as to what it has been in the past or what it is at present I could not say.

The CHAIRMAN. Your employees are paid from a car, are they not?

Mr. MAGOON. Yes, sir; the car goes along the line, stopping at the different points.

The CHAIRMAN. Would it be a practical thing to pay these men partly in money and partly in little drafts on New York?

Mr. MAGOON. Well, I never was in the banking business—

The CHAIRMAN. I have been, and I am thinking of it as a practical proposition.

Mr. MAGOON. I do not know, sir.

The CHAIRMAN. Our friend here is a banker, also. It seems to me that the Government could hardly enter into such an arrangement as that. I can understand how a bank might, but I was wondering whether it would be practicable for the Government officials to pay these small amounts partly in drafts and partly in money.

Mr. MAGOON. Knowing as I do the difficulty we have in making prompt payments anyway, I should say that it would be difficult. The advent of the pay car, of course, means a cessation of labor for everybody in the vicinity, and they all get around and fight and quarrel to get their pay, very much as children do when coming out of a school or trying to get into a circus, or something of that sort—I mean, of course, the West Indians. The gold men are paid on a pay roll, and it would be easier with them; but the minute that it was given to them it would be demanded by the rest of our employees.

The CHAIRMAN. Yes. I think there would not be much trouble with the gold men; but with the other employees it would seem to me to be impracticable.

Senator TALIAFERRO. This arrangement with the bankers appears to have been made through a Mr. William Nelson Cromwell, representing the Republic of Panama.

Mr. MAGOON. Yes, sir.

Senator HOPKINS. What page are you referring to, Senator?

Senator TALIAFERRO. Page 202 of the testimony.

Mr. MAGOON. In what capacity does he sign?

Senator MORGAN. He is representing the Republic of Panama.

Senator TALIAFERRO. It says here: "The Republic of Panama, acting through William Nelson Cromwell, its fiscal commissioner in the United States." Is that the same Cromwell that is with the Commission now?

Mr. MAGOON. May I ask you, Senator, do you mean who holds an official position with the Commission?

Senator TALIAFERRO. Yes.

Mr. MAGOON. Mr. Cromwell does not hold an official position with the Commission.

Senator TALIAFERRO. He is the same Mr. Cromwell who now holds an official position with the railroad company?

Mr. MAGOON. Yes, sir; he is general counsel of the Panama Railroad, and he is the same man who acted as the representative of the Panama Government in that matter.

Senator TALIAFERRO. He represented Panama then, and now he is with the Panama Railway Company?

Mr. MAGOON. Oh, he has been with the Panama Railroad Company for a number of years; just how long I do not know; but he has been the general counsel of the Panama Railroad.

Senator TALIAFERRO. He was not with the Panama Railroad Company when he made that arrangement as the fiscal agent of the Republic of Panama, was he?

Mr. MAGOON. Yes, sir; he was general counsel for the railroad at that time.

Senator TALIAFERRO. And fiscal agent for the Republic of Panama?

Mr. MAGOON. Yes, sir.

Senator TALIAFERRO. That was subsequent to the purchase of the railroad by this Government?

Mr. MAGOON. Subsequent to the purchase of a majority of the stock; yes, sir.

Senator TALIAFERRO. By this Government?

Mr. MAGOON. Yes, sir.

Senator MORGAN. After all, it appears that this arrangement was made with the Republic of Panama, and not with the bankers.

Mr. MAGOON. The Republic of Panama was interested in reducing the rate of exchange, and they signed the agreement.

Senator MORGAN. They took up the subject for the bankers and made it an international bank?

Mr. MAGOON. They took up the subject for their benefit, according to my understanding of it.

Senator MORGAN. For the benefit of the Republic?

Mr. MAGOON. Yes.

Senator MORGAN. And they made the requirement or demand or request that these bankers should have the benefit of this arrangement?

Mr. MAGOON. I never heard so; no, sir.

Senator MORGAN. Does not the paper on its face show it?

Mr. MAGOON. No; I do not think so. I think they made it for the financial benefit of their own Government, that they might get the benefit of the reduction in exchange.

Senator MORGAN. Was the Government of Panama engaged in the business of buying and selling exchange?

Mr. MAGOON. They would have to do so; yes, very largely. They are engaging in public improvements, and are obliged to spend money, just as the Commission does.

Senator MORGAN. Was this arrangement made for the purpose of carrying on any of the governmental functions of the Republic of Panama, or was it made for the benefit of the bankers?

Mr. MAGOON. Well, I should say it was for their mutual benefit.

Senator MORGAN. Wherein is the Government of Panama concerned or interested, financially or otherwise, in the rate of exchange that the United States would pay to these bankers for cashing its checks?

Mr. MAGOON. I think that that Government would be vitally interested in the rate of exchange, just the same as they would be vitally interested in the preservation of a stable currency.

Senator TALIAFERRO. What vital interest would they have in the rate of exchange?

Mr. MAGOON. Promoting the welfare of their own commercial industries.

Senator MORGAN. Under the "general welfare" clause? Have they got that in their constitution?

Mr. MAGOON. I think so. If they have not they ought to have.

Senator MORGAN. That is the clause they are working under, if they work at all in the direction of the consummation of this agreement, is it not?

Mr. MAGOON. I do not know what instigated the Panama Government.

Senator MORGAN. Is it not the fact that the Government, standing behind these companies, has pressed this demand upon the Government of the United States as an international agreement?

Mr. MAGOON. I am not advised as to the fact. I can only tell you that I never heard of that being the case.

Senator MORGAN. Mr. Cromwell seems to be the representative of the Republic of Panama, and signs in that character: "Republic of Panama, by William Nelson Cromwell, fiscal commissioner;" so that this was an agreement between the two Governments, Mr. Cromwell representing the Republic of Panama, to which the bankers assented?

The CHAIRMAN. From what are you reading, Senator?

Senator TALIAFERRO. He is reading from the testimony of Mr. Benson.

Senator MORGAN. I am reading from the contract.

Mr. MAGOON. Senator, will you permit me to call your attention to the fact that the Government of the United States is not one of the parties to that agreement?

Senator HOPKINS. It was signed by Mr. Shonts as chairman of the Commission and as president of the railroad company.

Mr. MAGOON. Yes. It is as much a contract, so far as the Commission is concerned, as a contract fixing the price of steam shovels would be.

Senator MORGAN. I do not understand that the Commissioners have any powers whatever that are not derived through an act of Congress with the consent of the President of the United States.

Mr. MAGOON. Undoubtedly.

Senator MORGAN. It has no other powers whatever?

Mr. MAGOON. Undoubtedly.

Senator MORGAN. Therefore, when the Commission deals with a foreign government in making a contract of any kind it must deal, if it deals lawfully, under the authority of the President.

Mr. MAGOON. It dealt with the bankers of Panama just as it would deal with a private manufacturing company. That would be my view of it.

Senator MORGAN. But the Commission has no authority except governmental authority?

Mr. MAGOON. It has full authority to make contracts.

Senator MORGAN. That is governmental authority, is it not?

Mr. MAGOON. To purchase lumber or to purchase currency.

Senator MORGAN. But every contract they make is a contract between the Government and the other party. It is all Government business. So that, in fact, the Government was represented by the Commission,

Mr. Shonts representing it as chairman, and the Panama Railroad Company was represented by Mr. Shonts as president.

Senator TALIAFERRO. And Mr. Cromwell.

Senator MORGAN. In signing, I mean.

Senator TALIAFERRO. Oh! In signing?

Senator MORGAN. Yes. And the Panama Government was represented by Mr. Cromwell, who signs the name of that Government "By William Nelson Cromwell, fiscal commissioner;" and it was done at the presidency of the Republic. Was not that entirely an international agreement?

Mr. MAGOON. I would not think so, any more than if the Commission had purchased from those bankers so much timber or agreed to take so much timber. This is the same as other contracts.

Senator MORGAN. It would have been if they had purchased the timber from the Government of Panama, would it not?

Mr. MAGOON. No; I do not think if we were to divest the Government of Panama of its proprietary title to some timber that it would be an exercise of the treaty-making power, for instance.

Senator HOPKINS. On page 202, under the first clause there, does not the contract itself show that the United States, as a Government, is not interested at all, but that it is an agreement between the bankers who are enumerated in the first paragraph and the Isthmian Canal Commission and the Panama Government? The bankers make a certain agreement with the Commissioners, of which Mr. Shonts is the chairman, affecting certain things that they want done, and then they make an agreement with the Republic of Panama afterward for the purpose of conserving certain interests that the Republic of Panama want; so that it is not an agreement between two independent governments at all.

Senator MORGAN. Why should it be approved by W. H. Taft, Secretary?

Senator HOPKINS. Simply because these Commissioners have him approve all of their acts.

Senator MORGAN. No; I beg pardon.

Senator HOPKINS. Everything of any special importance.

Senator MORGAN. This is the only one I have seen that he has approved, unless he made the contract directly, under authority of the President.

Senator HOPKINS. Mr. Stevens's evidence was to the effect that his acts were approved by Secretary Taft.

Senator TALIAFERRO. You do not contend that the Government is not interested in that contract or agreement?

Senator HOPKINS. It is interested to the extent that this Commission is enabled to facilitate its work by reason of the agreement; but the Government is not directly a party to the contract.

Senator TALIAFERRO. But is not the contract made for the Government?

Senator HOPKINS. Precisely as a contract is made for the Government if the Commission goes out here and buys hardware or anything else to send down there.

Senator TALIAFERRO. Certainly.

Senator HOPKINS. But that does not require a treaty, or does not have to go to the Senate to be confirmed?



Senator TALIAFERRO. But waiving these technical points, in which I am not particularly interested, I want to know if it is not entirely practicable to give to American citizens there Government drafts when they need them, instead of forcing them to go to the Panamanian banks and pay 3 per cent to send their money home.

Mr. MAGOON. I should say that it is practicable—that is, it can be done—but that it would entail an amount of clerical work, routine and detail, that would involve the Government in some expense.

Senator MORGAN. You have ample clerical assistance there; you have never had a dearth of that there, have you?

Mr. MAGOON. We have had, several times.

Senator MORGAN. Have you, as a rule, ample clerical assistance?

Mr. MAGOON. No; I think the disbursing officer at the present time is insisting that he be given more clerical assistance.

Senator MORGAN. Would you say that this arrangement between Secretary Taft and the Government of Panama was necessitated by the fact that it was inconvenient to issue checks upon the subtreasury of the United States in favor of one of our salaried officers there?

Mr. MAGOON. Do you mean by saying the agreement between Secretary Taft and the Government of Panama to refer to the agreement known as the "Bankers' agreement?"

Senator MORGAN. Yes.

Mr. MAGOON. I should say that that was probably one of the reasons which led the Commission to enter into the arrangement.

Senator MORGAN. Have you ever heard that mentioned as a reason for it?

Mr. MAGOON. Yes, sir.

Senator MORGAN. Is it anywhere stipulated in this contract that that is the reason for it?

Mr. MAGOON. I think not; no, sir.

Senator MORGAN. Was not this an arrangement between the Government of Panama and the authorized agent of the Government of the United States, the Secretary of War, made directly with Mr. Cromwell, as representing the Panama Government, for the purpose of handing over the handling of all the money that came into that district for the payment of operatives and employees of every kind, at a rate of three-quarters of 1 per cent, when they cashed in our checks, and at a rate of 3 per cent maximum when our men went there to get checks to send home?

Senator TALIAFERRO. It is not a maximum rate; it is a rate.

Senator MORGAN. Yes; it is a maximum rate. It has not been the rate. I have already stated, Senator, that at times—

Senator TALIAFERRO. But it is not a sliding scale at all, or a sliding rate.

Senator MORGAN. No; they have the right to demand 3 per cent.

Senator TALIAFERRO. Yes; that is the rate.

Mr. MAGOON. They have the right to charge 3 per cent.

Senator TALIAFERRO. There is no maximum about it.

Mr. MAGOON. They have the right to demand it.

Senator TALIAFERRO. It is the arbitrary rate that they have agreed on, as I understand it.

Mr. MAGOON. But it is not compulsory upon the banks, and they have not been up to that rate. I think the majority of the time the rate is below the 3 per cent.

Senator TALIAFERRO. Do you know of any instance where they have charged employees less than 3 per cent?

Mr. MAGOON. Yes, sir. There was some time there last summer that they did not charge anything at all.

Senator TALIAFERRO. How do you account for that?

Mr. MAGOON. They got into a row between the four banks. Competition was the cause of that.

Senator TALIAFERRO. Then this arrangement is not binding on all?

Mr. MAGOON. It is binding so far as the benefits that are derived by the Commission from it are concerned; but, as between the banks, they are not bound to charge 3 per cent, and they do not charge 3 per cent.

Senator HOPKINS. It is a limitation.

Mr. MAGOON. It is the maximum rate under this agreement. They can not charge any more under the agreement. They can charge as much less as they see fit, and they have been doing so.

Senator MORGAN. This agreement seems to be signed by "Ehrman & Co., by J. Ehrman" and "for American Trade Developing Company, J. Ehrman," "Isaac Brandon & Bros., International Banking Corporation, J. S. Fearon, vice-president." Who are the real parties to that agreement?

Mr. MAGOON. The parties signing it.

Senator MORGAN. Those that are named here—Ehrman & Co., the American Trade Developing Company, the International Banking Corporation, and Isaac Brandon & Bros.? There are four of them?

Mr. MAGOON. Yes; those are the four banks at Panama.

Senator MORGAN. Do you know who are the stockholders or managers of the American Trade Developing Company?

Mr. MAGOON. I do not.

Senator MORGAN. Is Mr. Cromwell one of them?

Mr. MAGOON. I think not. I am quite sure that he is not. I think that is what we know down there as the Arias family.

Senator MORGAN. Are they in this arrangement?

Mr. MAGOON. Yes, sir; they are the American Trade Developing Company. I think they are what is known as the Arias family, a very old and established concern down there.

Senator TALIAFERRO. Do you know whether Mr. Cromwell is interested in any of the banks in that agreement?

Mr. MAGOON. I do not. I should say from what I have heard down there, that he is not interested in any one of the banks signing that document. I have never heard that he was, and they know those things down there, you know. It would be common property if he were. For instance, the fact that Mr. Cromwell owns some stock in the electric light and ice plant is known. I have heard that stated. I am very sure that if he owned any stock in any of these concerns it would be known.

Senator MORGAN. Did this arrangement extend to the railroad receipts and disbursements?

Mr. MAGOON. I do not understand. Does the railroad go to them, you mean?

Senator MORGAN. Yes.

Mr. MAGOON. I am not connected with the railroad, but I think that they are parties to that transaction, and Mr. Shonts signs as president of the road.

Senator MORGAN. Yes; there is the Panama Railroad, signing by Mr. Shonts, president, under the signature of the powers to this contract.

Mr. MAGOON. Yes.

Senator MORGAN. At the time that Mr. Cromwell was acting as fiscal agent for Panama in making this contract, he was also the advisory counsel of the railroad company?

Mr. MAGOON. Yes, sir.

Senator MORGAN. And also a director of the railroad company?

Mr. MAGOON. If he is a director now, he was then.

Senator MORGAN. Therefore Mr. Cromwell, who was transacting this business for the Panama Government, was dealing with himself as counsel and also as one of the directors of the railroad company?

Mr. MAGOON. Well, Senator, we do not seem to agree. I do not understand that this contract is with the Panama Government.

Senator MORGAN. Well, suppose that it is.

Senator TALIAFERRO. He states specifically that he negotiates it as the fiscal agent of the Panama Government.

Senator MORGAN. No matter in what character he acted, or how obligatory it was upon anybody concerned, he was the same man—

Senator HOPKINS. Is it not fair to state that that statement of his is where he is dealing with the bankers for the Panama Republic, and not for the Commission?

Mr. MAGOON. Not for the United States or for the Commission.

Senator MORGAN. At all events, he is the same Cromwell?

Mr. MAGOON. Yes, sir.

Senator MORGAN. He is the same Cromwell who was the attorney of the company?

Mr. MAGOON. He is the same William Nelson Cromwell; yes.

Senator TALIAFERRO. Has he any official relation to the Republic of Panama now?

Mr. MAGOON. I think he is the fiscal agent in this country.

Senator TALIAFERRO. He is still running both sides of it now?

Mr. MAGOON. Well, I do not think you want my judgment on that proposition. [Laughter.] Yours is probably as good as mine on that, if not better.

Senator TALIAFERRO. I do not object to it, anyhow.

Senator ANKENY. What is the remedy, Governor Magoon, if a man is charged more than 3 per cent for exchange; how does he correct it? What do you do with them if they do charge more? What is the penalty?

Mr. MAGOON. The only penalty would be to declare the contract forfeited, I think.

Senator ANKENY. As far as that man is concerned?

Mr. MAGOON. I think this is a contract, entered into for the benefit of the public, of which he is one, and that he could bring suit on it.

Senator ANKENY. There is no forfeit; nothing but that? You have a contract with no penalty?

Mr. MAGOON. Section 3 provides for the forfeiture, as I remember it. [After examining the agreement.] I do not see any as to that particular incident.

Senator ANKENY. I did not notice any. The contract amounts to nothing.

Senator HOPKINS. This is the language, on the bottom of page 203: "If any of the bankers shall, in any respect, fail to observe and perform all and each of the provisions of this agreement, then, at the option of the other bankers, this agreement shall cease, determine, and be utterly at an end with respect to the banker or bankers so in default," etc.

Senator ANKENY. That is, that individual bank?

Senator HOPKINS. Yes.

Senator MORGAN. Suppose they all default; who stands sponsor?

Mr. MAGOON. I think that must be a misprint. I think it should be "parties" rather than "bankers."

Senator MORGAN. You have semimonthly pay days down there?

Mr. MAGOON. Yes; for the common laborers.

Senator MORGAN. For the gold men and the silver men. On these semimonthly pay days you handle a large amount of money?

Mr. MAGOON. Yes, sir.

Senator MORGAN. There is none of it in actual gold, is there?

Mr. MAGOON. Oh, yes, sir; there is a good deal of gold down there since we have come in. There is a good deal of English gold.

Senator MORGAN. Do you pay the gold men in actual gold coin or in United States coin?

Mr. MAGOON. We pay them in United States currency. Sometimes it is gold, and very often you see gold in circulation there.

Senator MORGAN. The great bulk of the payments to the gold men are made in United States currency, are they not?

Mr. MAGOON. Yes, sir.

Senator MORGAN. National-bank notes or other national currency?

Mr. MAGOON. Usually gold notes, for some reason or other.

Senator MORGAN. In gold notes?

Mr. MAGOON. Yes, sir.

The CHAIRMAN. They use very little actual gold—it is usually the gold notes that are used?

Mr. MAGOON. It is the gold notes that we use in the payments, but you will find on the Isthmus now gold, English sovereigns.

The CHAIRMAN. The American money, however, consists mostly of gold notes?

Mr. MAGOON. Yes, sir; mostly gold notes.

Senator MORGAN. In advance of these semimonthly payments of the Government of the United States, or the Isthmian Canal Commission and the Isthmian Railway, I suppose there is some notice given to the banks that your payment will amount to a certain sum of money, so that they may be ready for it?

Mr. MAGOON. Yes, sir.

Senator TALIAFERRO. The agreement provides for ten days' notice.

Senator MORGAN. I know. You have to give ten days' notice beforehand of the amount that you will want, say, on the 15th day of the month. Is a draft ever drawn in favor of the bank against the subtreasury of New York before the 15th, if that is the date of payment?

Mr. MAGOON. Yes; the drafts are drawn with some reference—with considerable reference—to the sailing of the vessels.

Senator MORGAN. Yes.

Mr. MAGOON. For instance, supposing that there was a sailing on

the 13th and there would not be another sailing until the 20th or the 21st, they would come to us and say: "Take our money now and let us arrange it so that we can get the advantage of this sailing."

Senator MORGAN. They pay out the money actually into the hands of the disbursing officers?

Mr. MAGOON. Absolutely. They would not get the draft until they did.

Senator MORGAN. They pay out that money before the draft is delivered?

Mr. MAGOON. Yes, sir.

Senator MORGAN. Are you quite sure that no drafts have ever been drawn and delivered to those banks in advance of the day of payment?

Mr. MAGOON. You mean of the actual payment?

Senator MORGAN. Yes.

Mr. MAGOON. I am quite confident of it. Inasmuch as I do not draw the drafts myself, I do not know it as an absolute verity, but I am as absolutely certain of it as I am of anything which is not within my own experience.

Senator MORGAN. Then, on the 15th day of the month, or the day before, possibly, the disbursing officer draws his draft against the four banks?

Mr. MAGOON. It is ordinarily before, in order that he may have it to be out on the road on the 15th.

Senator MORGAN. He draws his money, and at that time, the time he makes the draft for the money from the bank, he issues his draft on the subtreasury at New York?

Mr. MAGOON. Yes, sir.

Senator MORGAN. And not before?

Mr. MAGOON. Not before.

Senator MORGAN. Then, the failure of the bank or of all the four banks to meet the requirements of which ten days' notice has been given would impose no penalties upon them, would it?

Mr. MAGOON. It would impose the penalty of the forfeiture of the contract.

Senator MORGAN. Nothing beyond that?

Mr. MAGOON. I think not. There might possibly be a legal remedy for damage by reason of nonperformance of the agreement or contract. There would be that remedy, always.

Senator MORGAN. And that is all you have?

Mr. MAGOON. I think so.

Senator MORGAN. So that these four banks, if they wanted to do it, if it was to their interest, could at any time repudiate or refuse to cash the checks, without any other penalty than the loss of the benefits of the contract?

Mr. MAGOON. Yes.

Senator MORGAN. Is that a safe situation for the Government of the United States to be in with reference to a great number of employees that it has to pay on the 15th of the month or the 30th of month?

Mr. MAGOON. The hazard is very slight, considering that one of those banks is one of the biggest institutions in the United States and that all of the banks are dependent upon their standing in financial circles. It is one of the things that could be—just as if all of our hands were in one day to be palsied, or something of that sort. It does not seem to be within the range of possibilities, yet it is not absolutely impossible.

Senator MORGAN. The Government of Panama is a party to this contract. Suppose the Government of Panama, for reasons of its own, political reasons, should desire to inform the United States that they have a great deal of power down there, and that they could suspend operations on that canal for a month or such a matter by ordering the banks not to do this thing, not to pay. Has not the Government of Panama the power under this agreement to suspend it?

Mr. MAGOON. No, sir; that would be an absolute physical impossibility.

Senator MORGAN. Why?

Mr. MAGOON. Because we could get money there in six days, or six and a half days, by our own boats; and, to save a catastrophe such as you indicate, it could be gotten in less time than that from New Orleans.

Senator TALIAFERRO. Why is it not desirable to get your money there by those boats?

Mr. MAGOON. As I say, it was considered very much better to have the local silver than to try to use our own money. That was based upon the experience which we had had in other Latin-American countries.

Senator HOPKINS. And you avoid the risk in transmission, too, do you not, in this way?

Mr. MAGOON. Yes, sir.

Senator MORGAN. The Government of Panama is a party to this contract. Why can not the Government say: "We are a party to the contract as a government, and you bankers must not execute this contract, because it is against public policy that you should do so?"

Mr. MAGOON. Well, suppose the United States Government were to say that? It is one of the things that lies within the main strength of the Government.

Senator MORGAN. What I am trying ascertain is to what extent we have put ourselves in the power of the Government of Panama on this financial question.

Mr. MAGOON. Absolutely nothing. We have not put ourselves in their power in any way whatever, Senator.

Senator MORGAN. The Government can certainly stop the arrangement, being a party to the contract.

Mr. MAGOON. I think not.

Senator MORGAN. Why not?

Mr. MAGOON. Because they can not.

Senator MORGAN. I do not see why the Government is a party to the contract if it has not control under it, or rights under it.

Mr. MAGOON. The parties to a contract are bound by it. The purpose of the contract is to bind the parties to it, not to give them powers to destroy it.

Senator MORGAN. But if the Government of Panama chose to take the risk upon itself, for reasons of its own, or for reasons which might concern some other government that was in alliance with it, to stop this work on this canal, what would prevent them from refusing to carry into execution this contract that the Government has entered into and made itself a party to for the supply of this money?

Mr. MAGOON. It would not affect the situation a particle. We do not go to the Panama Government to get this money.

Senator MORGAN. Why did you go to the Panama Government to make a contract about it, then?

Mr. MAGOON. We did not.

Senator MORGAN. Why, it is signed by the Government.

Mr. MAGOON. No, sir. We went to the bankers, and it was satisfactory to the Panama Government, and they made the same agreement.

Senator MORGAN. Why does the Government of Panama sign a paper that it has no interest in and no control over?

Mr. MAGOON. The Panama Government had an interest in making the same agreement that we did, and made it—not with us, but with the people that we made it with.

Senator HOPKINS. Is it not just as reasonable, Senator Morgan, to assume that the Panama Government would go down there and murder Mr. Shonts and all other Americans on the Isthmus as that they would attempt to stop the bankers carrying out this agreement?

Senator MORGAN. If you will allow me to say it, I have seen in this evidence here a demand in regard to postal arrangements, a demand in regard to financial arrangements, and opposition to our opening commissaries to sell provisions to our own people, and other matters equally important and equally intrusive that that Government has forced upon us, and I have seen that our authorities have yielded to that Government, and I want to know the reason of it.

Senator HOPKINS. My understanding of the evidence is not as you express it. I do not think we have yielded anything to the Government there, and I think we have gotten more from the Government than we have given them on the little details of contracts that have been referred to by the various witnesses here.

Senator TALIAFERRO. Do you not think that it is yielding when the conditions are such that the representatives of this Government down there can not draw a draft to pay a bill it owes on the Isthmus and turn it in there as a payment?

Senator HOPKINS. No; I think this: That good financial business requires a contract of this kind, and that it is a matter of economy to this Government. I think the suggestion that you made about paying in drafts there is one that in business circles would not stand a moment.

Senator TALIAFERRO. It is done in every other department of this Government; in every department at home.

Senator HOPKINS. The conditions here are entirely different from what they are on the Isthmus; entirely so.

Senator MORGAN. My questioning in regard to this matter is directed to the point as to whether it is not now time, and of the highest necessity, that the Government of the United States should declare its independence of the Panama Republic in digging this canal.

Senator HOPKINS. This is not a contract which the Government is making with Panama at all. It seems from the reading of the contract that the Panama Government wanted certain concessions from these bankers and that the Commission wanted to facilitate the securing of money to pay their employees, so that instead of making two separate contracts, the bankers making one with the Commission to look after the interests of the Commission and another separate contract between the bankers and the Panama Government, they made it in one contract. That is the way I read it.

Senator MORGAN. The way I read it is that Mr. Cromwell, having control to a very large degree, as proven by other witnesses, and to a very objectionable degree, in the way of advice and in instructions to

Commissioners and other officers of the United States in that Canal Zone, has obtained this authority from the Government of Panama so that he might come in with a big stick and say to us that the Government of Panama, not the bankers, makes this demand upon you, and it is a transaction between the two Governments to which we acceded.

The CHAIRMAN. Senator, we do not appear to have before us the governor's testimony that was given before the committee on Friday, but I think we went over all this then, did we not?

Senator HOPKINS. My understanding is that the Government employees here in Washington are paid in currency. I have seen long lines of clerks in the Treasury Department standing waiting for their money.

Senator TALIAFERRO. That is for their convenience. They can get a draft, when they want it. But here is a positive prohibition against the payment on the Isthmus to any employee of this Government in anything but money to be procured from these banks at a charge of three-quarters of 1 per cent for the money and a maximum of 3 per cent if that employee desires to send his money home. It is a positive prohibition, as I read it: "The Commission, the Railroad Company, and the Republic severally, but not jointly, agree with each other and with the bankers severally, to purchase from or sell to the bankers, as the case may be, in the proportions aforesaid, all drafts or bills of exchange drawn on the Isthmus."

Senator MORGAN. That looks to me as though it were a corner on the finances of the Isthmus.

Mr. MAGOON. May I offer a suggestion right there, Senator?

Senator TALIAFERRO. Just one moment. In other words, if a citizen of this country goes there to work on the canal for twelve months to accumulate his money, and he desires to leave and bring it home with him, he can not get a draft—he can not get his money without paying to a bank what the bank charges, up to a maximum of 3 per cent, for the exchange, unless he lugs his money with him in his pocket.

Senator HOPKINS. In the first place you are assuming a condition that can not possibly exist. It may be, of course, that there will be times when these men will want to send money home, but they are safeguarded in getting their draft from the bankers more than they would be if they had a draft from the Government, because if this draft from the Government was lost they would have to come to Congress to get relief, and if the draft of the bank is lost all they have to do is to satisfy the bank of the loss and they can get a duplicate draft.

Senator TALIAFERRO. I am not discussing the point of danger at all.

Senator HOPKINS. We are speaking now as to whether it is a wise or an unwise arrangement, and looking at it from a business standpoint, if I were an employee down there I would infinitely prefer an arrangement by which they could not charge me to exceed 3 per cent to get a draft on New York or any other point than I would to have it entirely open, or to have them pay me in a draft; because, as I suggest, if the Government draft is lost the money is absolutely lost unless you get relief from Congress.

Senator TALIAFERRO. You misapprehend my meaning entirely. I think that the employee there should be able to get his money or his draft as he prefers and without cost. A citizen of this country down there building that canal should be able while on the Isthmus



to get what is due him by the Government, by the Commission, in money or in drafts without any cost whatever to him.

Senator HOPKINS. That comes comes right back to the proposition as to which is the better business arrangement.

The CHAIRMAN. While these discussions across the table are very interesting, I think we had better get our information from the witnesses.

Mr. MAGOON. While our minds are on this there is something which I desire to call to the attention of this committee, and that is that it would be greatly to the advantage of many of our employees if the Congress of the United States would permit a man who goes down there, leaving behind him his wife and family, to apportion his salary in Washington so that a portion of it can be paid here directly to his family.

Senator TALIAFERRO. That is the point I am after, exactly.

Mr. MAGOON. I did not catch it. What I mean is, Senator, that he could leave an order with the Washington office as is done in the Navy. The families of naval officers and of men in the Navy can draw a portion of their salary directly from the Government. The Comptroller of the Treasury advised us that that could not be done by employees of the Commission.

Senator SIMMONS. Why not?

Mr. MAGOON. Because there is no law authorizing it. It would be a very excellent thing, indeed, if a man himself could say that one-half or one-third or two-thirds of his salary is to be paid here to his wife or to some person whom he would designate.

Senator TALIAFERRO. The object of my inquiries was distinctly to lead up to that point.

Mr. MAGOON. I am very glad to put that point before you gentlemen.

Senator MORGAN. Then the question occurs: There being no such law as that applicable to the Isthmus, although there is such a law applicable to the Navy, why can not the Government of the United States, and why should not the Government of the United States, pay the man in a check upon the subtreasury or upon the Treasury of the United States if he wants to send money home to his wife and children?

Mr. MAGOON. That is the subject of discussion.

Senator MORGAN. I want to ask this about it: The silver payments down there are larger in the aggregate than the gold payments—very much larger, are they not?

Mr. MAGOON. As I say, I do not know about that question.

Senator MORGAN. The silver payments are made in silver coin?

Mr. MAGOON. Yes, sir.

Senator MORGAN. What coin?

Mr. MAGOON. The coin of the Panama Republic.

Senator MORGAN. If a negro goes from Alabama to work on the Isthmus, and he gets his pay in the coin of the Republic of Panama, and puts it in his pocket and comes home, what use can he make of it? It is not legal tender here, and not current money. What use can he make out of it?

Mr. MAGOON. I do not know, sir.

Senator MORGAN. Do you think he could do anything with it?

Mr. MAGOON. I do not think he would have any difficulty in disposing of it most anyway he saw fit—from shooting craps to buying drafts.

Senator MORGAN. He could not pay it out for a debt?

Mr. MAGOON. I think they would take it.

Senator MORGAN. It is not legal tender in the United States?

Mr. MAGOON. No, sir; but I think it would pass current.

Senator MORGAN. All of our minor coins are legal tender up to the sum of \$5. So that this man would come home with his pockets full of the silver money of Panama that he would be compelled to either lose the use of or pay a discount on, would he not?

Mr. MAGOON. I do not think so.

Senator MORGAN. I do not see how it could be otherwise.

Senator HOPKINS. I submit that this line of examination is not eliciting any facts and that it is only a waste of time.

The CHAIRMAN. My recollection of the testimony Friday is that we really went over all this. We have not the testimony before us, but I think that we covered this very thoroughly on Friday, did we not, Senator?

Senator MORGAN. Not the points that have been covered here to-day. We certainly did not make any allusion on Friday to the proposition that Senator Taliaferro put forward to-day.

The CHAIRMAN. We ought to get along with this as fast as we can.

Senator HOPKINS. This examination has been developing something entirely foreign to what we are getting at here.

Senator TALIAFERRO. The discussion of this agreement is foreign?

Senator HOPKINS. That was not the point I was making. I think you and I indulged further than we ought. I think the point made here about the colored man from Alabama bring up some of the money here and the discussion as to what luck he would have with the banks in Alabama, or any place, is something entirely foreign to what we are supposed to develop by this witness.

Senator MORGAN. That is one reason why I can not persuade my colored friends from Alabama to go down there. [Laughter.] They have to pay 3 per cent for their money to bring it home to their families or else bring it back in the coin of the country, that they can not use.

I want to ask you about the Markel matter. Do you know Mr. Markel, the gentleman that went down there to get a contract for feeding those people?

Mr. MAGOON. Yes, sir.

Senator MORGAN. How long have you known him?

Mr. MAGOON. I think I met Mr. Markel the first time in 1891 or 1892, at the time he came to Lincoln and started a hotel.

Senator MORGAN. He was a hotel man, was he not?

Mr. MAGOON. Yes, sir.

Senator MORGAN. And also provided for the feeding of bodies of railroad hands?

Mr. MAGOON. I understand that is his business; yes, sir.

Senator MORGAN. He had large experience in all of that?

Mr. MAGOON. So I have heard.

Senator MORGAN. When did you first meet him on the Isthmus, or, I will say, in New York?

Mr. MAGOON. I never met him in New York that I know of.

Senator MORGAN. Well, on the Isthmus, then.

Mr. MAGOON. I met him on the Isthmus in the month of June, 1905.

Senator MORGAN. Were you a Commissioner at that time?

Mr. MAGOON. I was; yes, sir.

Senator MORGAN. On whose invitation did he go to the Isthmus?

Mr. MAGOON. He told me that he went on the invitation of Mr. Wallace, and I think Mr. Wallace also told me that he had invited him to come. I think Mr. Wallace told me that on the boat going down. Mr. Wallace and I went down to the Isthmus together.

Senator MORGAN. What was the object of his visit?

Mr. MAGOON. To investigate the question of feeding the hands. At the time that Mr. Wallace told me that it was a fact that there had been a great deal of dissatisfaction. They had been feeding the men in lots—that is, giving a man the job of feeding this gang and that gang and the other gang—and it had led to a great deal of dissatisfaction, and the thing culminated in the gang of men that were at work on the waterworks, or one part of the waterworks, refusing to go to work because they said that they had not been properly fed. The man in charge of them appealed to the Panama police, and that brought on a conflict between the police and the men in which there was some damage done—that is, there was a fight between the men and the police.

The men were Jamaicans, British subjects, and Mr. Wallace thought, and when I got down there it appeared to me, and to some others, that it might make serious complications—an injury to a British subject by Panamanian officers at a time when the man was working for the American Commission. That, as I understood it, was what induced Mr. Wallace to take up the question of feeding the men either by the Commission or in some way which would not attempt to divide up a profit among a number of people. When the men who were feeding the gangs were appealed to to provide better meals, they said that these people beat them out of their board and that they were losing money, and could not afford to feed them as well as they were doing, so that it worked backward and forward; it was a combination. Those colored men would work in a gang, and live with this man for a few days, and drop off and go to some other gang, and not pay this man.

Senator MORGAN. Did this outbreak, riot, or whatever it was occur outside of the Zone or inside of the Zone?

Mr. MAGOON. Outside of the Zone, within the limits of Panama.

Senator MORGAN. They were, of course, on the waterworks?

Mr. MAGOON. Yes, sir.

Senator MORGAN. What police interfered with them and brought on this trouble?

Mr. MAGOON. The police of the city of Panama.

Senator MORGAN. Not the police of the Isthmian Canal Commission?

Mr. MAGOON. No, sir.

Senator MORGAN. Of the Zone government?

Mr. MAGOON. No, sir.

Senator MORGAN. What did they do to these workmen?

Mr. MAGOON. I was not there; that was before my arrival on the Isthmus.

Senator MORGAN. Yes.

Mr. MAGOON. There are official reports that will show.

Senator MORGAN. Did you not understand that those men had become refractory because they were actually in want of food?

Mr. MAGOON. That was what they claimed.

Senator MORGAN. Yes; nobody disputed it?

Mr. MAGOON. No, sir.

Senator MORGAN. What occasioned that want of food among them?

Mr. MAGOON. The man who was feeding them did not supply it, or at least did not supply such food as they wanted to eat.

Senator MORGAN. Had there not been a very considerable increase in the price of food?

Mr. MAGOON. I think there had.

Senator MORGAN. Was not the price of food, which was occasioned by scarcity and difficulty of being gotten at, the real cause of the shortness of food among the employees of the canal?

Mr. MAGOON. Well, in this particular instance I think it was because the man who was feeding them did not feed them enough.

Senator MORGAN. In that particular instance; but, as a general thing, did not the prices advance very much?

Mr. MAGOON. They did. We had mining-camp prices.

Senator MORGAN. Was there not a considerable period of time in which the feeding of the employees, the laborers, etc., was conducted entirely by arrangement between them and the keepers of hotels or restaurants or feeding places?

Mr. MAGOON. Not entirely, because there were places along the line in the camps, you know, where there were no hotels or "cantinas," as they were called, or restaurants, or anything else, up there in those hills, and so on.

Senator MORGAN. Do you know whether the Government or merchants of Panama demanded of the Isthmian Canal Commission that they should not furnish commissaries to their people, in order to encourage the trade of feeding the people amongst the merchants and other providers of Panama or Colon, or any place outside of the Zone? Did they make any such demand as that—that you should not supply them with commissaries?

Mr. MAGOON. Not to my knowledge.

Senator MORGAN. Was that the understanding in the Isthmus?

Mr. MAGOON. Not since I have been there; there has not been any. The merchants demanded it, but not the Government.

Senator MORGAN. Well, the merchants; they demanded that the Isthmian Canal Commission should not sell provisions to their own employees?

Mr. MAGOON. To the colored employees.

Senator MORGAN. To the colored employees?

Mr. MAGOON. Yes, sir. It was conceded at all times as to the gold employees.

Senator TALIAFERRO. Do you mean that they demanded it?

Mr. MAGOON. The merchants? That would depend upon what you meant by "demand." I would not say there was any formal demand. It was their position; they assumed that attitude.

Senator TALIAFERRO. They said that it was just down there that these things should be so?

Senator MORGAN. They assumed that attitude?

Mr. MAGOON. Yes; that we ought not to take their trade away from them.

Senator MORGAN. By feeding your own employees?

Mr. MAGOON. By bringing in the food and having commissaries. I never heard of any objection to the Commission establishing boarding houses if they wanted to. I never heard any objection from the hotel keepers or the restaurant keepers or anybody there as to that.

Senator MORGAN. But the objection was that they should not sell commissary supplies to their own employees?

Mr. MAGOON. Yes, sir.

Senator MORGAN. And that that was a business in which the Panama merchants should be permitted to engage exclusively?

Mr. MAGOON. Yes, sir; the Panama and Colon merchants and the merchants along throughout the Zone.

Senator MORGAN. Yes. That was the occasion, I suppose, of this dissatisfaction on the part of the employees of our canal.

Mr. MAGOON. What is that?

Senator MORGAN. That they could not get commissaries from the canal company or from the railroad company, and that they had to buy them at a high price from the merchants in Colon and Panama?

Mr. MAGOON. Yes; they had to pay a high price.

Senator MORGAN. At that time did the United States Government have commissaries that it could have disposed of to those people?

Mr. MAGOON. We did not have them located along the line; the United States Government did not have, and has not now—that is, the Government commissaries. They are the commissaries of the Panama Railroad Company.

Senator MORGAN. I understand that arrangement.

Mr. MAGOON. Yes. At that time the commissary was at Colon. The proposal was to establish others all along the line.

Senator MORGAN. Was there any obstruction placed in the way of the United States authorities in getting those commissaries out over the line and selling them to those people that were working for the Government?

Mr. MAGOON. None whatever.

Senator MORGAN. Then why was it not done?

Mr. MAGOON. I thought you meant at the time that we did it. Do you mean prior thereto?

Senator MORGAN. Yes; at the time that this complaint was being made and this outbreak was going on.

Mr. MAGOON. Why, at that time—

Senator MORGAN. The Government of the United States did not take these commissaries and go and sell them to these people?

Mr. MAGOON. As I say, the commissaries belonged to the Panama Railroad.

Senator MORGAN. The railroad belonged to the Government, did it not?

Mr. MAGOON. Yes, sir.

Senator MORGAN. And everything in it?

Mr. MAGOON. The reason why the native Panamanians, the West Indians, and other people from tropical countries—that is, the alien labor there, the silver labor, as they are called—were not permitted the privilege of the commissaries was the agreement entered into at the time of Secretary Taft's first visit to the Isthmus, under which it was stipulated that the commissaries should be open to the gold employees unless the Panamanian shopkeepers made an excessive

profit, in which event the United States Government reserved to itself the right to open the commissaries, and did do so.

Senator MORGAN. And to sell to the gold employees?

Mr. MAGOON. No, sir; they sold to the gold employees all the time, the theory being that the Americans coming down there could not find in the shops that were kept for tropical people the things that they were accustomed to at home.

Senator MORGAN. Do I understand it, then, that the Government of the United States put itself under obligations that it would not sell commissaries to its own employees unless the prices that were charged by Panama and Colon and other merchants were not too high?

Mr. MAGOON. Yes, sir.

Senator MORGAN. There is another point on which I would like to declare our independence of Panama.

Mr. MAGOON. Well, it is already declared. We are doing it now.

Senator MORGAN. Yes.

Mr. MAGOON. The contingency under contemplation arose, and the commissaries were opened.

Senator MORGAN. Was it not the effort to provide some arrangement to feed these people, both the gold and silver people, that led to the coming of Mr. Markel into the Isthmus?

Mr. MAGOON. Yes; but his coming had nothing to do with the commissaries, Senator.

Senator MORGAN. It had nothing to do with the commissaries?

Mr. MAGOON. No. The commissaries are run independently of the boarding houses.

Senator MORGAN. Of course, but they are Government establishments and are authorized, I suppose, to sell either cooked food or raw food to the employees of the Government?

Mr. MAGOON. The commissaries do not sell meals.

Senator MORGAN. What do they sell?

Mr. MAGOON. They sell dry goods, groceries—it would be similar to an ordinary country store; they sell crackers and cheese, sardines, etc.

Senator MORGAN. Meats?

Mr. MAGOON. Meats; yes, sir.

Senator MORGAN. Meal, flour, and so on?

Mr. MAGOON. Yes, sir.

Senator MORGAN. Hard bread?

Mr. MAGOON. No; well, I do not know whether they sell bread or not; I think not.

Senator MORGAN. A man could go to a commissary store there and fit himself out with both clothes and food, could he not?

Mr. MAGOON. Yes, sir; but they would not serve the meal to him.

Senator MORGAN. They would not serve it, but they would sell the provisions, and he could go off and cook them?

Mr. MAGOON. Yes.

Senator MORGAN. Our Government agreed that they would not permit the sale of food, as I understand it, to the silver employees unless the prices in the stores in Panama and Colon and in other establishments belonging to the natives were so high that it was necessary to do so in order to provide them with a living?

Mr. MAGOON. The provision is incorporated in the published agreement, and it is substantially to that effect.

Senator MORGAN. The Government could, under that agreement with Panama—I believe it was a Government agreement, was it not?

Mr. MAGOON. It was an agreement between Secretary Taft—. It is the agreement which you had Friday.

Senator MORGAN. The Government could, under that agreement, proceed to sell commissaries (that is to say food, raw food) to its laborers on the Isthmus?

Mr. MAGOON. Yes, sir.

Senator MORGAN. Was Mr. Markel called there for the purpose of making any arrangement that was included in that agreement with the Government of Panama?

Mr. MAGOON. Not that I ever heard of or supposed.

Senator MORGAN. In what respect, then, were his services there as an expert required?

Mr. MAGOON. He was brought there for the purpose of investigating and reporting as to a feasible plan for the Commission to take over the additional service of serving these people with cooked meals and providing for the care and keep of the places in which they were quartered.

Senator MORGAN. Was that arrangement made before he came to the Isthmus?

Mr. MAGOON. I do not know.

Senator MORGAN. You do not know when it was made?

Mr. MAGOON. I do not know, sir.

Senator MORGAN. Did you make it with him?

Mr. MAGOON. I did not.

Senator MORGAN. Did the Commission, of which you are a member, make it with him?

Mr. MAGOON. Not to my knowledge, never.

Senator MORGAN. It made no such agreement with him?

Mr. MAGOON. Not to my knowledge, as a Commission.

Senator MORGAN. So that, so far as you know as a Commissioner, Mr. Markel came there on a private enterprise?

Mr. MAGOON. He came there at the invitation of Mr. Wallace, who was a Commissioner; but I thought you were inquiring for the official action of the Commission.

Senator MORGAN. I was.

Mr. MAGOON. Yes, sir; that is as I understood it.

Senator MORGAN. I was. I want to show that he went there only in pursuance of the invitation or agreement, or whatever it might have been, with Mr. Wallace, and that there was no change in the situation made by the Commission. After he got to the Isthmus, in other words, he was not authorized as an expert to enter into an investigation and a survey and an estimate, and the like of that, to ascertain what was possible to be done conveniently and profitably in the sale of cooked food to the operatives on the Isthmus. Now, Mr. Markel came on the Isthmus and remained about how long?

Mr. MAGOON. I think he was there a month.

Senator MORGAN. A month?

Mr. MAGOON. I am not sure.

Senator MORGAN. During that time he was advising with the Commissioners and all concerned?

Mr. MAGOON. There was only one Commissioner on the Isthmus at that time. That was myself.

Senator MORGAN. Was he advising with you about it?

Mr. MAGOON. I had but two conversations with Mr. Markel, and that was at the time he had completed his investigation. He made a very thorough investigation, making several trips back and forth and stopping and going out and seeing where the camps were.

Senator MORGAN. And you were the only Commissioner there?

Mr. MAGOON. I was the only Commissioner there.

Senator MORGAN. Having made a thorough investigation, what did he next do?

Mr. MAGOON. When he came there, in the first place, he came to me and said that he had come upon the invitation of Mr. Wallace, and told me of having received a letter asking him to come. I said yes; that Mr. Wallace had told me he was coming, and that I was glad to see him; that it was an interesting problem that I had no knowledge of or previous experience with, but, fortunately for me, it was not in my department. He said he had seen Mr. Wallace the day before he left New York, and that Mr. Wallace had so advised him—that the matter of feeding the employees did not belong to the government of the Zone, and that with reference to that matter he would report to Mr. Shonts.

He went ahead and made his investigation. He talked with me the night before or shortly before he was intending to sail back to the States. (There were two of them, I may say—Mr. Markel, junior, as well as Mr. Markel, senior.) He said that he had gone over the situation, and told me what he thought was the thing to do—to have a central plant in Colon, a supply train to run along the line, hotels for the gold employees at convenient distances, eating houses (that is, eating sheds or booths) for the silver men, for the colored laborers, and an eating car—what I should call a soup car, or something of that sort—to go along to supply the men with coffee and that sort of meals, such as he told me was in use in works of construction in the United States.

Then he wanted to know if there had been any talk of letting out this job by a contract, and I said that that matter had never been discussed as far as I knew, but that there were some manifest advantages about it from the standpoint of the Commission. I said that it would be such a difficult task for the Commission to handle it, to secure the personnel, and to look after the matter entirely, but that I was of the opinion that we would have to do it; it was one of the things which we would be obliged to do, because we could not make the necessary and proper arrangements.

I think it was either the day before or the day that Mr. Markel was intending to sail that we received word on the Isthmus of the sailing of Mr. Shonts and his party, the other commissioners.

Senator MORGAN. From New York?

Mr. MAGOON. From New York; and Mr. Markel came to me and said that he had been intending to get back to the United States and to see Mr. Shonts and report to him and take the matter up with him; and he said, "What do you think I had better do?" "Well," I said, "Mr. Markel, do as you see fit; but if it were me, Mr. Shonts and his party being on the water, I think I should stay here and see him on the ground where you can go over it." I do not think he made any response to that, but he did stay. I think he decided that day, or before his boat sailed, to stay.

He stayed and met Mr. Shonts and Mr. Stevens, and the auditor, the purchasing agent, and in fact all of the Washington office came down there; all of the principal officials came down to the Isthmus, and the



matter was then taken up and considered. We talked of the matter. Mr. Shonts at that time favored the taking over of the matter by the Commission, and so did the auditor, I think. It was a general discussion to which Mr. Markel was not a party; that is, he was not in the discussion. It took place one evening on the veranda at the governor's house. Mr. Markel was at the farther end, and we were sitting up at this end. We had been talking about other affairs of the Commission, and Mr. Stevens and I favored the contract idea because it would be so much easier for us. We had so many things to contend with down there, there was so much which called for personal action that gave all sorts of annoyance, and I was of the opinion that it could be done cheaper, that it would be cheaper to our employees; and there the matter rested so far as any action was concerned.

Senator MORGAN. You never took any official action as a Commissioner upon any arrangement with Mr. Markel to the effect that he would put in bids?

Mr. MAGOON. None whatever.

Senator MORGAN. That matter was turned over to Mr. Shonts?

Mr. MAGOON. That matter was turned over to Mr. Shonts. The matter of the help getting meals was critical down there at the time Mr. Shonts left, and there was all sorts of apprehension of the difficulty we would get into because we could not supply at regular intervals a sufficient amount of properly prepared food.

Mr. Shonts went back. Generally in our conversations we had concluded that it would be the best plan to have this central plant at Colon, with cold storage and a large bakery and a large laundry and things of that kind that made that the point of supply either by the Commission or a contractor, which was left open.

Senator MORGAN. When Mr. Shonts went back Mr. Markel went with him?

Mr. MAGOON. I think so; yes. That is my recollection, that he went back on the boat with him; and the next I knew was that a contract had been entered into by the railroad company and Mr. Markel. I was advised of that fact by Mr. Stevens some time after the contract was entered into.

Senator MORGAN. Why was this matter turned over to the railroad company?

Mr. MAGOON. My understanding of that was that the proceeds that were taken in by the boarding houses would have to be put into the United States Treasury if it were run by the Commission; that instead of keeping the money and turning it over and over, it would have to go into the United States Treasury and be appropriated out again by Congress.

Senator MORGAN. And the proceeds of the railroad, of every kind and character, were not turned into the United States Treasury?

Mr. MAGOON. No.

Senator MORGAN. They were turned into the treasury of the company?

Mr. MAGOON. They were turned into the treasury of the company.

Senator MORGAN. And therefore it was more convenient that the railroad should handle it than that the Commission should, because it would not involve the necessity of covering the money into the Treasury and paying it out again?

Mr. MAGOON. That is the only reason I ever heard.

Senator MORGAN. Yes. Now, did you enter into the discussions between Mr. Shonts and the advisory counsel of the railroad company as to this arrangement? Did you enter into it as a Commissioner in any way or did you assume any jurisdiction or control over it as a Commissioner?

Mr. MAGOON. None whatever, sir.

Senator MORGAN. The whole matter was turned over to Mr. Shonts as the president of the railroad company?

Mr. MAGOON. I think that Mr. Markel and Mr. Stevens started in on it. You see Mr. Stevens was a practical railroad man—as is Mr. Shonts for that matter—but I think that after that conversation which I have detailed between us all on the veranda, Mr. Markel and Mr. Stevens talked the matter over.

Senator MORGAN. Was Mr. Stevens then officially connected with the railroad?

Mr. MAGOON. Oh, yes; he was the general manager of the railroad.

Senator MORGAN. The general manager?

Mr. MAGOON. Yes.

Senator MORGAN. Then was Mr. Shonts superior to him in that capacity?

Mr. MAGOON. Oh, yes; yes, sir. What I mean is simply that Mr. Shonts participated in the discussion and knew what was going on; but I think it was talked over between Shonts and Stevens, because they were the men who would know about the handling of the details.

Senator MORGAN. Shonts was president and Stevens was general manager of the railroad?

Mr. MAGOON. Yes, sir.

Senator MORGAN. And Stevens was under Shonts's orders?

Mr. MAGOON. Yes, sir.

Senator MORGAN. Did Mr. Markel make any bid that you know of for this work? Did he put in any specifications or bids?

Mr. MAGOON. I have seen what was in the newspapers, Senator. If you will permit me I will call attention to the fact that what was done was done here in the United States, and I was on the Isthmus.

Senator MORGAN. Yes. You have now told all that was done on the Isthmus?

Mr. MAGOON. Yes.

Senator MORGAN. The balance of the transaction between Mr. Shonts and Mr. Markel was off of the Isthmus?

Mr. MAGOON. Yes, sir.

Senator MORGAN. Was not any investigation made to ascertain whether under the charter of the Panama Railroad Company they could go into the business of feeding the canal hands and employees and operatives?

Mr. MAGOON. They had been doing it for a number of years, and I think it was taken as conclusive that they had the authority.

Senator MORGAN. Had the Panama Railroad Company been feeding the French hands that were employed there?

Mr. MAGOON. No; but their own hands.

Senator MORGAN. Their own hands?

Mr. MAGOON. Yes; and they had been running hotels.

Senator MORGAN. Yes; I know. I am talking about feeding the canal hands.

Mr. MAGOON. I do not know; that was determined upon up here.

I do not know what was done; but in general I do not believe the question would arise, because so many railroads are running hotels.

Senator MORGAN. I suppose the fact was that the railroad company under the French administration had commissaries in order to feed its own hands, but did not have commissaries or any other arrangement for providing the food of the laborers on the Panama canal?

Mr. MAGOON. I do not know.

Senator MORGAN. You do not know?

Mr. MAGOON. No, sir; but I presume that the Washington House, which was run by the railroad in Colon, was utilized by the French employees.

Senator MORGAN. The authority of Mr. Shonts as president of the railroad company to enter into an agreement to feed the employees of the canal would necessarily have to be based upon some provision in the charter of the Panama Railroad Company?

Mr. MAGOON. I do not believe railroads always confine themselves, Mr. Senator, to what is authorized by their charters. We hear a good deal about their doing things that are not authorized by their charters.

Senator MORGAN. I am very sure of that; and I want, as far as I am concerned, to try to confine them to their legal rights and duties. I think the law requires that.

Mr. MAGOON. I never made any investigation as to that, Senator.

Senator MORGAN. You made no investigation?

Mr. MAGOON. And I can not say, as to that, what investigation was made here. I do not know.

Senator MORGAN. Was there any meeting of the railroad directors on the Isthmus or elsewhere within your knowledge?

Mr. MAGOON. Not within my knowledge.

Senator MORGAN (continuing). To authorize this contract with Mr. Markel?

Mr. MAGOON. I do not know. As I say, I was there, and that was done up here, and the first I knew of it was when it was a fact, just after it came down to the Isthmus.

Senator MORGAN. Was Mr. Cromwell a figurant in this arrangement, in these councils and advices, etc., as the counsel of the railroad company?

Mr. MAGOON. I do not know, sir.

Senator MORGAN. You do not know?

Mr. MAGOON. I do not. I do not know, and I have never heard, either.

Senator MORGAN. He was there, was he not?

Mr. MAGOON. I do not know; I was not.

Senator MORGAN. No; I do not mean in New York, but on the Isthmus. Was Shonts with Cromwell on the Isthmus?

Mr. MAGOON. Oh, no. The only time, I think, that Mr. Cromwell has ever been on the Isthmus was the time he was down there with Secretary Taft in the fall of 1904.

Senator MORGAN. That was at the time that *modus vivendi* was negotiated?

Mr. MAGOON. Yes, sir; the document which you named that on Friday.

Senator MORGAN. So that you have no knowledge of and have had no official connection with any arrangement with Mr. Markel in regard to this whole matter of his contract?

Mr. MAGOON. No, sir.

Senator MORGAN. But you assisted as a Commissioner in voting him the \$10,000 for his expert services on the canal, did you not?

Mr. MAGOON. I did not.

Senator MORGAN. You did not?

Mr. MAGOON. I did not. It was not voted by the Commission, Mr. Senator.

Senator MORGAN. By whom was it voted?

Mr. MAGOON. It was voted by the board of directors of the Panama Railroad. I was not at that meeting and I did not vote on that, and the first knowledge I had of it—

Senator MORGAN. So that when this \$10,745.97 was awarded to Mr. Markel it was a demand against the railroad company—is that a fact?

Mr. MAGOON. I suppose it was; yes, sir.

Senator MORGAN. It did not get into the accounts of the Isthmian Canal Commission at all?

Mr. MAGOON. No, sir; that is my understanding of it.

Senator MORGAN. The matter, then, was entirely between the railroad company and Mr. Markel?

Mr. MAGOON. Yes, sir.

Senator MORGAN. You have no knowledge of the Commission, as the Commission, ever having passed upon that account to approve it?

Mr. MAGOON. I know that I never have.

Senator MORGAN. You know that they never have?

Mr. MAGOON. I know that I never have, and I am quite confident that it has never been acted upon by the Commission. I read the minutes of the meetings at which I am not present and, in fact, all of them, and I have never encountered it in their minutes.

Senator MORGAN. Would that account pass in audit with the accounts of the Commission or with those of the railroad company?

Mr. MAGOON. Through the railroad company.

Senator MORGAN. Entirely?

Mr. MAGOON. Yes, sir.

Senator MORGAN. I have no further questions to ask Mr. Magoon.

Senator KITTREDGE. Judge Magoon, at the last session of the committee, I asked you some questions regarding the title to properties on the Canal Zone which I had not completed. I wish you would tell me about the property that is owned by the railway company on the Zone.

Mr. MAGOON. You wish me to tell you as to what, Mr. Senator?

Senator KITTREDGE. How much property it owns.

Mr. MAGOON. I am very glad that, anticipating that it would be required for Senator Ankeny's use, I went down and got a copy of this map [producing map] and I think it will give the information you ask for. Now, Senator, you know we were talking about surveying. You see, this is the way these estates run [indicating]. Here is the Zone line, and this is the Zone line. This map has not been filled out. Here is the Zone line, but that is all. The entire Isthmus is in just such a state as that.

Senator ANKENY. Well, Governor, my question was about surveys, to fix the corners of the metes and bounds we have there.

Mr. MAGOON. Yes, sir.

Senator ANKENY. You stated that if we got into court matters the judgment would be for "Chicken Ranch," etc. That is a rather indefinite judgment for real estate if it goes through the courts. I

may have been a little more particular about that and a little more critical than otherwise, because I have been through the Spanish grant war in California, where it would be said that a certain tract extended from arroyo so-and-so to such-and-such a place, another creek probably many miles from there, and the creeks had gone four or five miles to one side or the other—I thought from your evidence that that property would be valuable, and my object in asking for that was in order that when these lands became valuable we would have some knowledge of how to deed them, as we do in other Territories.

Mr. MAGOON. Yes, sir.

Senator ANKENY. You understood that?

Mr. MAGOON. No; I did not understand it quite that way.

Senator ANKENY. I wanted a preliminary method of designating property, such as we have in all our northern Territories. I live in the far West, and that was my object in asking you about that. What bearing has your map on that?

Mr. MAGOON. What I thought you wanted was a survey dividing the Zone up into rectangular sections and quarter sections.

Senator ANKENY. That is what my idea was.

Mr. MAGOON. I wanted to show you the irregularity of these estates.

Senator ANKENY. Then any other things could be fixed in the final surveys?

Mr. MAGOON. Oh, yes. For instance, take that survey. Instead of surveying this as a section they could fix the metes and bounds. Certainly that would be very advantageous.

Senator ANKENY. I am very much obliged.

Mr. MAGOON. I just happened to think of that and I thought it would interest you, sir.

Senator ANKENY. You never have had a final survey of our property?

Mr. MAGOON. No, sir.

Senator ANKENY. Of what we have down there?

Mr. MAGOON. No, sir. Of course we have been surveying; the Panama Railroad has done a good deal of surveying for itself.

Senator ANKENY. You refer to the engineering surveys?

Mr. MAGOON. Yes, sir.

Senator ANKENY. But would it not be well to have the limitations of the Zone fixed and to have the people adjoining participate, so that we would know where our division line ran?

Mr. MAGOON. Yes, sir.

Senator ANKENY. Have you never made such a suggestion?

Mr. MAGOON. No, sir.

Senator ANKENY. My idea was that we might follow the same course that we did with the Dominion of Canada when we ran the boundary line in my State, for instance.

Mr. MAGOON. Yes, sir.

Senator ANKENY. The Government fixed that, and it is fixed forever.

Mr. MAGOON. Well, the Government surveyors are laying off this line, the Zone line.

Senator ANKENY. That is the engineering part of it, as I understand. I understand, of course, that these lands are going to be valuable some day, and I wanted to call attention to the fact that we should have them surveyed by regular metes and bounds—a fixed, final survey.

Mr. MAGOON. Yes, sir; I did not understand.

Senator ANKENY. That was the object of the question. I thought I would make such a suggestion to them if they would allow me to. You would entirely approve of such a thing, would you?

Mr. MAGOON. Oh, yes.

Senator ANKENY. I understood you would.

Mr. MAGOON (addressing Senator Kittredge). I can figure out what you asked for, Senator.

Senator KITTREDGE. I do not ask for accurate information, but general information, if you can give it. For instance, the railway company owns practically all the town of Colon, does it not?

Mr. MAGOON. Yes, sir.

Senator KITTREDGE. To what extent is the property there owned by individuals or corporations?

Mr. MAGOON. As to the title, it was all in the railroad company—the entire island—with the exception of what we call Cristobal Point, which is quite a small portion of it and is indicated here by color, and the Panama government owns six full blocks and two or three fractional blocks, also there are two or three plots owned by private parties.

Senator KITTREDGE. Yes; I understand. I have been there.

Mr. MAGOON. I think, Senator, that I can answer your question best (unless you want me to give the figures for immediate consumption) by introducing this map, on which it is indicated. All of this land that is bordered with yellow is Panama Railroad land. That bordered in red was the land of the French Canal Company; it comes to us as that.

Senator TALIAFERRO. Which we acquired?

Mr. MAGOON. Which we acquired. That in green is the public land and that in mauve is subject to private ownership.

Senator TALIAFERRO. The public lands come to us under the treaty?

Mr. MAGOON. Yes, sir.

Senator HOPKINS. But you stated the other day, if I remember your evidence correctly, that some of the public lands are in controversy?

Mr. MAGOON. Yes, sir.

Senator KITTREDGE. I was getting to that question.

Senator ANKENY. What I anticipated, Governor, was a revenue to our Government out of this land. That was really the ultimate object of my question.

Mr. MAGOON. I understand.

Senator ANKENY. You understood that?

Mr. MAGOON. Yes, sir.

Senator KITTREDGE. What about the right of way of the railway company across the Isthmus?

Mr. MAGOON. There are some parts of that that are in dispute, if that is what you mean.

Senator KITTREDGE. Is it regular in character?

Mr. MAGOON. Oh, no; no. In securing the right of way the railroad company would buy pieces and parcels, and then, in many cases, the land was given them. The holders of the estates gave them the right of way, and sometimes it varies in width, if that is what you mean.

Senator KITTREDGE. As compared to the 10-mile strip mentioned in the treaty between this Government and the Republic of Panama, the railway property is comparatively small?

Mr. MAGOON. Yes, sir.

Senator KITTREDGE. To what extent is the railway property liable to be in litigation or the title of the railway company in dispute?

Mr. MAGOON. I think that the railway titles are pretty well cleared up, because the railroad has been there for so long that by prescription they would have acquired title; but I know of one case in which the contention is made that the railroad company has in recent years taken more than it was entitled to, and that it went on and occupied some of it.

Senator KITTREDGE. Can you give us substantially the law of the land upon the question of title by prescription or adverse possession?

Mr. MAGOON. It is substantially the same as it is with us.

Senator KITTREDGE. Will you not state what that is so that it may go in the record?

Mr. MAGOON. The complete, continuous, exclusive occupation continued for a given period of time will ripen into complete title as against a private owner. It does not run as against the Government. The period of time is that where the occupation is based upon an instrument purporting to convey the premises occupied it ripens into title in fifteen years. Where the occupation is not based upon a paper title, it requires twenty years.

Senator KITTREDGE. In answer to one of my questions the other day, you stated that adverse possession or title by prescription was the main issue in determining the controversy regarding title?

Mr. MAGOON. Yes, sir.

Senator KITTREDGE. What had you in mind in the exception to the rule of title by prescription or adverse possession?

Mr. MAGOON. There are some pieces of property (quite a number, I think), especially in the towns—in the town of Panama, for instance—where the title is based upon a conveyance from the Government of Colombia, and that would not involve that question. Now, it is not at all unlikely—in fact, I know of one instance where the grant from the Government overlaps one with the other. A controversy between those parties would involve a different question than prescription.

Senator KITTREDGE. Is that the only exception that you had in mind in making the answer to which I referred? Are there any other elements entering or likely to enter into litigation regarding titles to property in the Zone?

Mr. MAGOON. There will be other questions—that is, there will be questions of grants, deeds, conveyances.

Senator KITTREDGE. I understand; but, independent of the grant, if you have a grant by paper title, then the question of title by prescription or adverse possession does not maintain, does it?

Mr. MAGOON. No; not if you have a complete title; but in testing the title to nearly all that property I think that in its last analysis the reliance would have to be had, in a majority of instances, on prescription. But there may be titles that go right straight back to Balboa, for all I know, that show up with proper executions.

Senator KITTREDGE. Does the question of good faith enter into the question of title by prescription?

Mr. MAGOON. Yes. Well, in what way do you mean? Must it be a bona fide occupation, or a bona fide claim of title?

Senator KITTREDGE. Both.

Mr. MAGOON. Oh, yes; certainly.

Senator MORGAN. This map appears to be a French map.

Mr. MAGOON. It is a copy of one of the old maps that we got from the French company, as I understand it.

Senator MORGAN. Yes. This does not show, I believe, the delimitation of the Zone?

Mr. MAGOON. This is it [indicating]. That line has been added. It goes around here. This is the Zone.

Senator MORGAN. And that is predicated upon the correspondence of these outside lines with the axis of the canal?

Mr. MAGOON. Yes, sir.

Senator MORGAN. If we should locate the entrance to the canal in the Bay of Limon, say 3 or 4 miles to the westward of the present canal line, that would make it necessary to change the outlines of this map so far as the delimitation of the Canal Zone is concerned. In other words, our treaty requires that the delimitation of the Canal Zone shall correspond with the axis of the canal, and shall be 5 miles at all places on each side of the canal, away from that axis. That is our title. This map would not give those lines in the event that we should change the route of the canal at its entrance into the Bay of Limon from Colon to, say 3 miles of 4 miles to the westward of that?

Mr. MAGOON. It would not give any lines that were created after it had been printed.

Senator MORGAN. So that the lines of demarkation that are on this map are those that were established by the Panama Canal Company, I suppose, in correspondence with the Government of Colombia?

Mr. MAGOON. Do you mean this [indicating]?

Senator MORGAN. Yes.

Mr. MAGOON. Oh, this was just put down there by compasses. They took the axis of the canal as established at the time Congress authorized the grant and made these lines.

Senator MORGAN. There has not been at any time an official delimitation of the boundaries of the Zone?

Mr. MAGOON. No; not as to—

Senator MORGAN. Either by the Government of Panama or by the Government of the United States?

Mr. MAGOON. That is what we are surveying now.

Senator MORGAN. Do you not think, Governor, that that is a necessary work?

Mr. MAGOON. Undoubtedly.

Senator MORGAN. And one which ought to be done at once—as quickly as it can possibly be done?

Mr. MAGOON. To fix the jurisdiction—yes, sir; and General Davis succeeded in coming to an arrangement or an agreement respecting the delimitation at the towns of Colon and Panama, which was a very important and a very excellent thing. But it is not of such paramount importance, though it is still sufficiently important to require it being done immediately, to have this line fixed.

Senator MORGAN. The delimitations of Colon and of Panama, which are excluded from the Canal Zone—

Mr. MAGOON. Jurisdictionally.

Senator MORGAN (continuing). Jurisdictionally, are permanently fixed by agreements between the two governments under General Davis's direction?

Mr. MAGOON. Under General Davis's direction; yes, sir.

Senator MORGAN. All of those are agreed upon; those delimitations?



Mr. MAGOON. Yes, sir; it has not yet been confirmed by the Congress of Panama. That body has not been in session, you know.

Senator MORGAN. No. Will they be in session before August? Will they be in session before the election?

Mr. MAGOON. Before the election down there?

Senator MORGAN. Yes; is not that in August?

Mr. MAGOON. No; the election down there is in July. The election down there is for the members of the National Assembly.

Senator MORGAN. Oh, yes. So that this matter will go over, as to the confirmation of the demarcation of boundaries, until the Congress of Panama is elected, and until it acts upon it?

Mr. MAGOON. It will stand—it will remain just as it is now until they act upon it.

Senator MORGAN. Yes; I think that this map ought to go into the record of this committee.

Senator KITTREDGE. I agree with you, Senator.

Mr. MAGOON. Yes; I offered it for that purpose.

(The map referred to, which it was impracticable to print as a part of the record, is filed with the committee.)

Senator KITTREDGE. Had you finished for the present, Senator Morgan?

Senator MORGAN. Yes.

Senator KITTREDGE. To what distance from the center line of the railway tracks does the land of the railway company extend? I do not mean accurately, but generally.

Mr. MAGOON. "Irregularly" is the best I can say as to that. If you will notice, Senator, it is difficult for me to answer, because, taking those parts bounded in yellow—

Senator KITTREDGE. Does it extend some miles from the center line?

Mr. MAGOON. In some instances.

Senator MORGAN. You speak of the railway company?

Mr. MAGOON. Yes, sir.

Senator MORGAN. That is not coincident with the Zone line.

Senator KITTREDGE. I understand; I will get at that later.

Mr. MAGOON. In some instances; yes. In some instances it is.

Senator KITTREDGE. As a general proposition, what is the fact?

Mr. MAGOON. As a general proposition, it is adjacent; it constitutes the right of way.

Senator KITTREDGE. To what distance on either side of the right of way, or either side of the center line of the track?

Mr. MAGOON. I could not say; I could not fix that.

Senator KITTREDGE. To what extent are the titles to the property of the railway company involved in litigation?

Mr. MAGOON. Not very much, I think. I only know of one case; that is where it is claimed that the station house at Corozal, and some small structures that were put up by the railroad company, were put up on land that belonged to one of the Shubers.

Senator KITTREDGE. How large a tract of land is involved in that litigation?

Mr. MAGOON. The claimants assert that it is somewhere in the vicinity of 300 acres. Of course the railroad company asserts—

Senator KITTREDGE. Where is that suit pending?

Mr. MAGOON. There is no suit; that is a claim.

Senator KITTREDGE. When we acquired the property from the New Panama Canal Company we secured a larger tract?

Mr. MAGOON. Yes, sir.

Senator KITTREDGE. How large a tract is that?

Mr. MAGOON. It is so irregular that it is impossible to estimate.

Senator KITTREDGE. To what distance on either side of the axis of the canal of the old French company, the old French canal, did that real property extend?

Mr. MAGOON. In some cases it extended as much as 5 miles. No; I am mistaken about that, it would not be quite that far. In one or two instances it would be.

Senator KITTREDGE. As a general proposition?

Mr. MAGOON. But as a general proposition it runs along, following the course of the canal, and, I should say, perhaps a mile or half a mile on either side of it. In some cases it just skirts right along by the canal, just what would be necessary for the canal, and in others it is wider.

Senator KITTREDGE. Have you any knowledge regarding the title to that property?

Mr. MAGOON. Nothing, excepting that I know that there are numerous claimants to pieces of lands which we thought belonged to us either as public lands or as lands which we acquired from the French company.

Senator KITTREDGE. Will it or will it not be a difficult matter to defeat claims of the character you describe?

Mr. MAGOON. I should think that it would be a difficult matter, taking it by and large. For instance, I have in mind a case where claim is made to a piece of land which we consider public land, and the claimant will be able to show that his ancestors or the ancestors of his grantors had occupied that land for a century or two centuries; that it was known and had been known in the memory of man as the property of his family. We would go back to the title of Colombia, say; and he would say: "Yes, but my great ancestor was given a decree or a grant of that land." "What became of it?" "Well, it was preserved for awhile, but there have been numerous revolutions in this country; there have been numerous revolutions in Bogata, but it would naturally be on file here in the Panama department." If it was in the Colon district, that, he will say, was burned up at the time of the Prestan insurrection, and he is unable to produce it. That presents a very difficult position.

Senator HOPKINS. Right there, in the law case that you surmise, as I understand you, these titles are to be determined by the court that is to be created by Congress?

Mr. MAGOON. Yes.

Senator HOPKINS. And if this man was not a continuous occupant of that land, why is not the burden thrown upon him to show a chain of title rather than for the Government to do so?

Mr. MAGOON. I am assuming that he was a continuous occupant. I think the burden would be on him anyhow, and I am showing how he would evade it.

Senator HOPKINS. It would certainly be upon him.

Mr. MAGOON. We would show that the title passed from the Colombian Government.

Senator HOPKINS. Yes.

Mr. MAGOON. But he would say he had a grant, that it was one that

had been handed down from generation to generation in his family, but that at such and such a time such a building was destroyed and this record was burned up.

Senator HOPKINS. Yes; but the burden will be upon him to furnish legal proofs of all these things, will it not?

Mr. MAGOON. Well, yes; taking it as a strict constructionist.

Senator KITTREDGE. How large areas do these claimants usually contend that they are the owners of?

Mr. MAGOON. They usually contend for several hundred acres.

Senator KITTREDGE. You mean by "several hundred" about how many?

Mr. MAGOON. Take the Shuber estate, I think that consists of 380 acres.

Senator KITTREDGE. By "several hundred acres," what do you mean—three or four hundred or eight or nine hundred?

Mr. MAGOON. Well, Mr. Senator, it is quite impossible to say.

Senator KITTREDGE. Oh, I do not expect you to give it accurately.

Mr. MAGOON. These estates run from small estates to vast estates.

Senator KITTREDGE. What are the largest estates or claims which you have heard made?

Mr. MAGOON. The largest one that I have ever known is this Shuber claim, the Shuber estate, which involves two estates; but as to its size I could not say. You see, I do not know, and they are not registered down there as acres.

Senator KITTREDGE. Is there a probability that the great part of the land that we acquired from the New Panama Canal Company will be the subject of litigation of the character you mention?

Mr. MAGOON. No, I think not; not the great part. I should say it would be a small part, relatively, not to exceed an eighth or a quarter.

Senator KITTREDGE. Now, from the Republic of Panama, under the treaty between this Government and that Republic, a still larger tract of land was granted?

Mr. MAGOON. Yes; I think we will find eventually that as to practically all of that public land title will be asserted.

Senator KITTREDGE. Under that instrument we simply eliminated the interest of the Republic of Panama. Is that right?

Mr. MAGOON. Yes.

Senator KITTREDGE. And there is left open the question of title in adverse claimants?

Mr. MAGOON. It is not only left open, but the treaty provides, you know, that the transfer shall not in any way injure any claims of that kind.

Senator KITTREDGE. So you think that practically all the land acquired under that treaty or described in that treaty is likely to be claimed by adverse holders?

Mr. MAGOON. I do, yes, sir; a very large proportion of it.

Senator KITTREDGE. You stated the other day that you had doubt whether, in determining the value of land in the event this Government decided to take it or found it necessary to do so, its value at the time of the treaty would control. What are your reasons for that conclusion?

Mr. MAGOON. The experience which was had by the commission which purchased the Santa Rosa estate, the value of which was fixed

by a commission composed of Doctor Reed and Mr. Gaff, of Washington, who went down there and conferred with Messrs. Boyd and Cook, Panamanians.

Senator KITTREDGE. Can you state, in a very brief way, the trouble incident to that case?

Mr. MAGOON. They had a very long-continued controversy respecting it. I mean to say the commission could not agree. Several times it was thought that they would have to break it off and quit.

Senator KITTREDGE. Where was the land involved in that controversy located?

Mr. MAGOON. It was the foot-hill of Ancon mountain.

Senator KITTREDGE. That was near the city of Panama?

Mr. MAGOON. Near the city of Panama; yes.

Senator KITTREDGE. Now you may proceed (I do not want it in great length, but just in a general way) to indicate the character of the controversy.

Mr. MAGOON. That was all there was of it. They were down there for a considerable period, negotiating back and forth and trying to arrive at some sort of an understanding, and the demand of the owner, in which he was sustained by the Panamanians, was much in excess of what the Americans would consider as having been its value at any time. Eventually they fixed the value at about one-half of what he started out for. I can not give you the figures, for I can not carry them in my head, and they took place a year or more before I was connected with the Commission.

Senator MORGAN. Did they agree on the value?

Mr. MAGOON. Eventually; yes, sir.

Senator MORGAN. And so that matter was settled?

Mr. MAGOON. Oh, yes. Senator Kittredge was speaking of the difficulty of it.

Senator KITTREDGE. Do you remember the aggregate amount, or about what it was?

Mr. MAGOON. No, sir.

Senator KITTREDGE. What was it per acre?

Mr. MAGOON. I could not tell you.

Senator KITTREDGE. Could you ascertain, and let us know in the morning?

Mr. MAGOON. Yes; I presume so. I could let you know how much it was per meter.

Senator KITTREDGE. We can figure it out from that.

Mr. MAGOON. Yes; it was a matter of cents per meter, but how many cents I could not say; but I can let you know.

Senator KITTREDGE. And perhaps, if you have the opportunity, you could secure some one to figure it in acres?

Mr. MAGOON. I think probably I could.

Senator KITTREDGE. What was the character of the land involved in that controversy?

Mr. MAGOON. I say it was a foothill of Ancon Mountain.

Senator KITTREDGE. I understand.

Mr. MAGOON. It was rough land; that is, it was——

Senator KITTREDGE. Valuable for what purposes?

Mr. MAGOON. For building purposes only. It was an extension of the grounds of Ancon Hospital.

Senator KITTREDGE. And you desired it for the purpose of building an addition to that building?

Mr. MAGOON. No; the Ancon Hospital, you will recall, is a collection of structures.

Senator KITTREDGE. Yes.

Mr. MAGOON. The Walker Commission purchased it, and it was purchased as a building site for whatever additional structures might be required in the executive department of the government. It was not intended to put hospital structures on it.

Senator KITTREDGE. Was it a large tract?

Mr. MAGOON. Oh, no; no, sir. In general, I should say, it was between six and ten acres.

(At this point it was suggested that the committee adjourn until to-morrow morning.)

Senator MORGAN. I want to examine the governor upon one other subject before we adjourn. I will ask just one question before we go away.

I notice, Governor, that in the debates before the Senate recently Mr. Stone, of Missouri, brought up a number of statements made by the Washington Post, one of which I will read:

"A new and very important policy was entered upon yesterday by the Isthmian Canal Commission, when members of its executive committee decided to purchase both materials and ships in the markets of the world. This was approved by Secretary Taft."

Was any such resolution or agreement reached by the Commission?

Mr. MAGOON. I do not think so. I do not recall it at a meeting which I attended. But, Senator, as of course you know, I have been down on the Isthmus.

Senator MORGAN. Yes. Would the executive committee under the laws of the Zone, as established by the Canal Commission, with the approval of the President, have the right to come to a decision of that kind which would be conclusive upon the Commission? Would the executive committee have the right to come to such a conclusion as that?

Mr. MAGOON. None of the conclusions of the executive committee are binding upon the Commission; that is, the Commission can undo them.

Senator MORGAN. Has the Commission ever considered and decided upon that proposition?

Mr. MAGOON. Not so far as my personal knowledge goes. My understanding was that was announced by the Secretary of War. As I say, that is one of the things that took place in the United States when I was down on the Isthmus.

Senator MORGAN. It took place here. The Post says, in the same article:

This decision with regard to the canal was reached with some reluctance, because it was appreciated by Secretary Taft and the executive committee that there would surely be a great outcry from two great interests in this country—the producers of material and the shipowners—if the purchases were not limited to the American product. But it was decided that the money consideration was so great that it could not be ignored, for it was held that in cases fully 50 per cent more would be charged for material needed in the canal construction than the same goods could be procured for in Europe.

Have you any knowledge of any action of the Commission confirming that policy that goods and materials to be used on the Isthmus

should be purchased in any market where they were cheapest, other things being equal?

Mr. MAGOON. Why, it is my understanding that has been and continues to be the policy of the Commission.

Senator MORGAN. And is now?

Mr. MAGOON. Yes, sir.

Senator MORGAN. That they will buy in any market, other things being equal, where the prices are lower?

Mr. MAGOON. Yes, sir; that is my understanding. We advertise for bids, and consider the cheapest bid.

Senator MORGAN. Yes—no matter where it comes from?

Mr. MAGOON. No matter where it comes from.

Senator MORGAN. You consider that, now, as the established policy of the Commission?

Mr. MAGOON. That is my understanding of it. I have not participated in anything to establish it one way or the other. We did establish the policy of advertising for bids and taking the cheapest and best.

Senator MORGAN. That was for bids addressed to the Commission?

Mr. MAGOON. Yes, sir. I do not think we buy anything without advertising now, excepting that now and then I authorize the hospitals to buy fresh eggs, fresh vegetables, and things of that kind—the daily necessities.

Senator MORGAN. Does that policy of advertising apply to or bind in any way the management of the Panama Railroad?

Mr. MAGOON. No; the purchasing departments of the Panama Railroad and the isthmian canal are separate and distinct.

Senator MORGAN. And they act independently of each other?

Mr. MAGOON. And they act independently of each other; excepting, of course, that I think the gentleman's name is Anderson who is the purchasing agent in New York of the Panama Railroad Company, and I think that same man is the New York representative of Mr. Ross, the general purchasing agent of the Isthmian Canal Commission.

Senator MORGAN. The two ships, however, that were bought by Mr. Farnham were bought for the Isthmian Canal Commission, were they?

Mr. MAGOON. Yes, sir—they were bought—do you mean the *Havana* and the *Mexico*?

Senator MORGAN. Yes.

Mr. MAGOON. Of course I thought you referred to those, Mr. Senator, but I do not understand that they were bought by Mr. Farnham. My recollection is that Mr. Farnham was in Europe at the time they were purchased.

Senator TALIAFERRO. Mr. Cromwell bought those, did he not?

Mr. MAGOON. Mr. Cromwell? No, I think not. My recollection is that Mr. Shonts completed that transaction. But I was on the Isthmus at that time, too, and that is a Panama Railroad matter; and I am not an officer of the Panama Railroad operating department, and do not participate in it.

Senator TALIAFERRO. You do not remember, Governor, who initiated that transaction?

Mr. MAGOON. I remember that at the meeting that was held of the directors of the Panama Railroad Company the day or two days before

Mr. Wallace and I went to the Isthmus the question came up as to increasing the floating plant—that is, the ships, getting some larger and better ships. I think that at that time reference was made to these two particular ships, but that the price that was charged was so great that it was away out of proportion, away beyond their values; and the price charged at that time was greatly in excess of what they were subsequently purchased for.

Senator MORGAN. But the Panama Railroad Company owns four ships on the line running between New York and Colon? If I am correct in it, the railroad company owns four of those ships?

Mr. MAGOON. Five, is it not?

Senator MORGAN. Is it five?

Mr. MAGOON (after reflection). No; there are four, I guess. You are right, that is what it is.

Senator MORGAN. The Panama Railroad Company owns four of those ships, and rents or hires the two that we have just been talking about from—

Mr. MAGOON. From the Commission.

Senator MORGAN. That is the situation, then. That is all I wish to ask you this evening.

Senator TALIAFERRO. What were the names of these two ships we bought last?

Mr. MAGOON. The *Havana* and the *Mexico*.

Senator TALIAFERRO. You do not remember, Governor, who called your attention and that of Mr. Shonts to those ships?

Mr. MAGOON. No; I do not. I do not think my attention was challenged to it. I think it was talked over in the meetings. You know at that time it was not being considered by the Commission. The meeting to which I refer was a meeting of the directors of the Panama Railroad. It was contemplated to have the road buy some additional capacity in the way of ships; and then subsequently the Commission bought them and turned them over to the Panama Railroad.

Senator TALIAFERRO. What I wanted to ascertain was who brought the attention of the Commission or the railroad company to the fact that these particular ships could be bought—the *Havana* and the *Mexico*.

Mr. MAGOON. It is my recollection that the railroad people over there in New York knew of these two ships, but they were not the only ones. There was still another one, I think, a boat called the *City of Washington*, a large vessel, but it had no passenger capacity, though it was a better freight boat.

(The committee thereupon went into executive session, after which an adjournment was taken until to-morrow, Tuesday, February 13, 1906, at 10.30 o'clock a. m.)

## ISTHMIAN CANAL.

---

COMMITTEE ON INTEROCEANIC CANALS,  
UNITED STATES SENATE,  
*Washington, D. C., Tuesday, February 13, 1906.*

The committee met at 10.30 o'clock a. m.

Present: Senators Millard (chairman), Kittredge, Hopkins, Ankeny, Morgan, Taliaferro, and Simmons.

### STATEMENT OF CHARLES E. MAGOON, ESQ.—Continued.

Senator KITTREDGE. Governor, have you read the Poultney Bigelow article, which appeared some time since?

Mr. MAGOON. No, sir. The article, as it appeared in print, arrived on the Isthmus on Saturday. I took the Sunday boat—the next boat—and was very busy, and I have never seen the article in full. When I arrived in the States the article did not come to my attention. On the boat coming up I brought with me the papers from the States, which arrived on the day before, and in them were extended extracts from the article. But, while I think I have seen all that appeared in the article, I have not read the article in full as it appeared in the Independent.

Senator KITTREDGE. In a newspaper article within a day or two there has appeared a statement of some one, whose name I have forgotten, to the effect that the Bigelow article was true.

Senator ANKENY. Mr. Posthwaite.

Senator KITTREDGE. Did you notice that?

Mr. MAGOON. I have not seen that, either. My attention was called to it this morning as I was starting for the Capitol.

(A copy of the Independent containing the article of Mr. Bigelow was handed to Mr. Magoon, and he was requested to read it over during the recess of the committee; in order that he might be prepared to answer questions regarding it after the recess.)

Mr. MAGOON. I have been trying to get the article since I have been here. I have looked on the news stands, but did not find that issue of the magazine.

Senator KITTREDGE. You are a member of the Canal Commission?

Mr. MAGOON. Yes, sir.

Senator KITTREDGE. And governor of the Zone?

Mr. MAGOON. Yes, sir.

Senator KITTREDGE. And represent this Government at Panama?

Mr. MAGOON. Yes, sir.

Senator KITTREDGE. What salaries do you receive for the services that you render in the performance of such duties?



Mr. MAGOON. As governor I receive the salary fixed for my predecessor.

Senator KITTREDGE. What was that?

Mr. MAGOON. My predecessor received \$12,000 as salary, as did each member of the Walker Isthmian Canal Commission. General Davis also had an allowance of \$15 a day for his services as governor in addition to his services as commissioner.

Senator KITTREDGE. That amount was provided in the original order?

Mr. MAGOON. The original order of the President; yes, sir. The \$12,000 plus \$15 per day made \$17,475; and I think they increased it to the extent of \$25.

Senator KITTREDGE. Who increased it to the extent of \$25?

Mr. MAGOON. The amount that General Davis received would be \$17,475. I receive \$17,500 instead of \$17,475.

Senator KITTREDGE. For what service?

Mr. MAGOON. For the service as commissioner and the service as governor; and that was the service performed by General Davis. In addition I am a member of the executive committee of the Commission, a body which did not exist under General Davis's incumbency; and there have also been added the duties of American minister. I would like to call attention to the fact that I receive no compensation as minister; that my appointment has enabled the Government of the United States to save \$10,000 formerly paid the American minister at Panama; and in addition there was a general counsel of the Commission prior to my appointment as governor, which position was occupied by me.

The questions which the general counsel was called upon to handle, and the work which he was called upon to do, related almost exclusively to Isthmian affairs—such, for instance, as drafting the laws and taking up the many questions which arose there in our first occupation. As I was familiar with that work and had been handling it, it has been found unnecessary to fill that position, so that there is a clear saving to the Government of the United States of \$17,500.

Senator KITTREDGE. The aggregate compensation that you receive for the performance of all the duties you have described is what sum?

Mr. MAGOON. Seventeen thousand five hundred dollars.

Senator TALIAFERRO. How is that divided?

Mr. MAGOON. It is not divided.

Senator TALIAFERRO. I wanted to know how much you were paid as a member of the Commission and how much you were paid as governor of the Zone.

Mr. MAGOON. Theoretically the division would be, say, that the other members of the Commission who have not special duty assigned to them—that is, the four engineering members of the Commission—receive \$7,500 per annum. I receive \$10,000 more than that for the performance of the duties which I have on the Isthmus.

Senator TALIAFERRO. Does the Commission pay your salary as governor of the Zone?

Mr. MAGOON. Yes, sir.

Senator KITTREDGE. How many assistants have you?

Mr. MAGOON. I have an executive secretary—

Senator KITTREDGE. Who is he?

Mr. MAGOON. H. D. Reed.

Senator KITTREDGE. What does he receive?

Mr. MAGOON. He receives \$3,600.

Senator KITTREDGE. What are his duties?

Mr. MAGOON. He is the executive secretary of the Zone government and is the man who has charge of my immediate office—that is, all the affairs of the Zone center there, and they center at his desk. That would be the record room, the correspondence room, and the work of handling the matters and affairs distributed among the several departments of the government.

Senator TALIAFERRO. Have you only one assistant as governor of the Zone?

Mr. MAGOON. That is all; that is, in my own office. There is a head of each of the several departments. There is the chief of police, or the chief sanitary officer, the director of hospitals, the collector of revenues, the Zone district attorney, and the chief of the bureau of municipal affairs. Then there is, of course, a treasurer and an auditor, but that work is performed by the disbursing officer of the Commission so far as the treasurer is concerned, and the auditing is done by the auditor of the Commission.

Senator TALIAFERRO. Would you mind stating, Governor, the salaries paid to each of the officials that you mention?

Mr. MAGOON. I can state them from recollection, I think. The executive secretary gets \$3,600, the chief of police \$3,000, the collector of revenues \$5,000, the district attorney \$5,000, the chief of the bureau of municipalities \$3,600, the chief sanitary officer gets \$10,000, the director of hospitals \$7,500. I think that covers all of them, Senator.

Senator TALIAFERRO. What duties does the collector of revenue have to perform?

Mr. MAGOON. He has an office which covers a good many things. He is the collector of revenues; he performs such service as is rendered to shipping and cargoes in our ports. He is the director of posts; he is the collector of internal revenues.

Senator TALIAFERRO. Consisting of what, Governor?

Mr. MAGOON. There are 14 distilleries down there in the Zone. They are small, however.

Senator TALIAFERRO. Do they make this aguardiente?

Mr. MAGOON. No; they make principally Jamaica rum, and they make some clear alcohol, but their principal product is Jamaica rum.

Senator ANKENY. Do they grow sugar there?

Mr. MAGOON. Yes, sir.

Senator ANKENY. The rum is made from sugar?

Mr. MAGOON. Yes, sir; it is made from cane. He is also the commissioner of lands and buildings. You know, we took over a good many small properties from the French company that are leased; there are quite a number—something over 600—of individual leaseholds. He is the supervisor of education, and is the administrator of estates. That is, where an employee of the Commission dies leaving an estate of \$500 or less, it is administered by him without expense.

Senator TALIAFERRO. Have you schools on the Isthmus?

Mr. MAGOON. Yes, sir; there are ten schools now open, and I think that probably by this time there are four more. We are waiting for

the arrival of books and desks and things of that sort to open them, and I hope, sir, before this fiscal year is ended to have twice that many.

Senator TALIAFERRO. Are the schools well attended?

Mr. MAGOON. They were. They have recently been opened. None of them has been running more than thirty days—that is, none of the ten to which I refer. We had great difficulty in getting houses fixed up. We had to use everything for sleeping apartments for the men, and we took over old buildings. We did not deem it advisable to erect new structures and there was the necessary repairing. All of the old French structures were very bad, in very poor repair.

Senator KITTREDGE. What are the names of the gentlemen who hold the various positions you mention?

Mr. MAGOON. Col. W. C. Gorgas, chief sanitary officer—

Senator TALIAFERRO. Right there, Governor, he gets \$10,000 a year?

Mr. MAGOON. Yes, sir.

Senator TALIAFERRO. Is not he a regular attaché of the Marine-Hospital Service?

Mr. MAGOON. No, sir; he is in the medical corps of the United States Army.

Senator TALIAFERRO. He gets this in addition to his salary as an army officer?

Mr. MAGOON. No; his salary as an army officer is deducted from it.

Doctor Carter is director of hospitals. He belongs to the Public Health and Marine-Hospital Service of the United States. He receives \$7,500, from which is deducted his pay in the Service to which he is attached.

Senator SIMMONS. Governor, before you leave the question of schools, I would like to ask you to what children those schools are open?

Mr. MAGOON. Any children that live on the Zone.

Senator SIMMONS. Some of them are located in Panama and some in Colon?

Mr. MAGOON. No; none of the children are from Panama, because there is no school at present near enough to Panama for them to reach it. The nearest school to Panama is at Corozal, which is about 4 miles from the town; and there is no way of getting to it excepting by train or walking the railroad track. There are no children from Panama.

Senator TALIAFERRO. The schools would be open to the children of any of the people working on the canal?

Mr. MAGOON. Oh, yes; oh, yes.

Senator SIMMONS. And the children of natives who happen to reside within the school district?

Mr. MAGOON. Who happen to reside within the school district; yes, sir.

Senator SIMMONS. Is the entire expense of those schools defrayed by the United States?

Mr. MAGOON. No, sir. The municipalities defray the expense to the extent of their ability. They are authorized to levy a tax upon real estate of not to exceed 1 per cent of the assessed valuation. They are required to levy a tax of at least one-fourth of 1 per cent. One-half of the revenue so derived is devoted to school purposes.

Senator SIMMONS. But you have no arrangement by which the apportionment of the expenses is fixed?

Mr. MAGOON. Not yet; no, sir. There is no fixed apportionment; we want to see what they can do.

Senator SIMMONS. The amount the municipality contributes depends entirely upon the amount it is able to contribute?

Mr. MAGOON. Yes, sir; and we supplement that.

Senator SIMMONS. Who determines the question of ability?

Mr. MAGOON. We test the ability by the amount of money which the municipality has.

Senator SIMMONS. I mean, who applies the test? What official would apply the test?

Mr. MAGOON. The chief of the bureau of municipal affairs would report to the governor, and he would authorize the further disbursement of funds.

Senator SIMMONS. What per cent of our employees there carry their families with them, Governor?

Mr. MAGOON. The per cent of families that are actually there is small because of the lack of accommodations. The Commission adopted a rule that an employee would not be given the reduced rate of transportation for his family until quarters had been assigned them. If he applies for quarters and they are available, then he may apply for a reduced rate and get it. There are quite a number of families there, but—

Senator SIMMONS. Well, "quite a number" is a very indefinite term. Could you give any idea of how many American employees have taken their families with them? I am asking this as tending to practically demonstrate the feasibility of Americans living there without serious injury to their health. That is what I want to get at.

Mr. MAGOON. Yes, sir. In that connection, while I am casting up, I would say that I do not think we are able to supply one-tenth of the requests that are made to us for quarters for families.

Senator SIMMONS. Then you mean to say that if you could supply the quarters so as to give them the benefit of this reduced rate, or of free transportation, there would be nine or ten times as many more that would bring their families there?

Mr. MAGOON. I have no doubt of it. I do not know of a single employee we have who has a family that does not want to bring it down there.

Senator SIMMONS. Not a single employee?

Mr. MAGOON. I do not think there is a man in my department who has a family who is not anxious to bring the family down there.

Senator SIMMONS. Do you find among them any expression of apprehension that it would be dangerous to bring their families there?

Mr. MAGOON. Not for the past sixty days—more than that; not for the past four months, I would say. Just as soon as the alarm of yellow fever was over, just as soon as our nerves were steadied on that proposition, there immediately came the universal desire to bring their families down there.

Senator SIMMONS. Governor, do you think that there is a genuine feeling among the white employees there that the danger of yellow fever has been provided against as a result of your sanitation?

Mr. MAGOON. I do.

Senator SIMMONS. You think that feeling prevails among them?

Mr. MAGOON. I think that feeling is practically universal, that we have seen the last of yellow fever. I think that there is more appre-

hension in our own medical corps than among the rank and file of the American employees, because the medical corps understand the peculiarities of that disease. It seems to just drop on you like that from a clear sky; although they, of course, recognize that it must have an origin and that we are surrounded on all sides at short distances away with the disease.

Senator SIMMONS. I understand that.

Mr. MAGOON. But we have great confidence in the quarantine measures and in the officers who are enforcing them.

Senator SIMMONS. You think that feeling of safety, of security against the possible recurrence of this infection, extends not only to the officials on the Isthmus, but to the most of our white employees?

Mr. MAGOON. Yes, sir; through the rank and file.

Senator SIMMONS. Now, Governor, to what extent have you been able to reduce the dangers of malaria by your sanitation?

Mr. MAGOON. I should prefer to have you—

Senator SIMMONS. I am asking these questions because it was stated upon the floor of the Senate within the last few days that it was almost impossible to live there.

Mr. MAGOON. In this connection will you permit me to offer a copy of the report of the chief sanitary officer for the month of December?

Senator SIMMONS. Yes; I would be very glad to have you do so.

(The paper above mentioned, by direction of the committee, is incorporated in the record of the proceedings, and is as follows:)

ANCON, *January 17, 1906.*

The chief sanitary officer, in forwarding his monthly report for December to the governor of the Zone, says:

"The health conditions of the Isthmus remain excellent. During the month we had only one case of yellow fever on the Isthmus, that of an employee of the Commission who was taken sick at Colon December 11. In the city of Panama the last case occurred November 11.

"At present we have on hand no quarantinable disease of any kind on the Isthmus.

"The sick rate of the employees continues very low. With a force of about 22,000, we had on the average during the month 427 in hospital. This would give us a sick rate of slightly over 19 per thousand. While the sick rate is very small, the death rate has been large. This was due to the large number of fatal cases of pneumonia occurring among the negro employees. Of the 74 deaths, 33 were due to pneumonia, and all of these cases of pneumonia occurring among the negroes. Leaving out these 33 cases of pneumonia, our death rate for the month would be at the rate of about 22 per thousand per year.

"Our white employees suffer much less than the negroes. Among the whites we had only 4 deaths, and of these 4 deaths only 2 were from disease. This would give us an annual death rate among the whites of only 8 per thousand. The death rate among the negroes, on the other hand, would give us an annual death rate of about 44 per thousand. It is difficult for me to account for this great difference. Of course the whites, on the average, take very much better sanitary care of themselves, sleep under mosquito bars, take quinine, and observe other sanitary regulations to a much greater extent than do the negroes.

"Recently an attack has been made upon the conduct of affairs generally on the Isthmus by a writer of prominence in the Independent, and he criticises severely what he believes to be the unsanitary condition of Colon, pointing out its location over a swamp, poor houses, poor arrangements for disposal of night soil, etc., and calling attention to the absurd system of sanitation which pays so much attention to mosquito work and fumigation.

"In reply to criticisms of this kind, I would like to call attention to the fact that the sanitary department on the Isthmus was not established to demonstrate any theory of disease. We came for a practical purpose, to decrease disease as much as possible. The absurd measures have certainly so far accomplished this result. The facts stand forth that at present we have not a single case of yellow fever on the Isthmus, and during the whole month of December had only one; that malaria has been brought so well under control that our total sick rate is as small as that of any considerable body of men working anywhere in the United States.

"This writer, Mr. Bigelow, judges us by a sanitary standard of ten years ago, and as applied to the temperate zones. He is apparently unaware that recently acquired knowledge has entirely revolutionized tropical sanitation.

"Our knowledge and experience in tropical sanitation have shown us that if every house in Colon had been supplied with modern plumbing and the buildings themselves had been well-built Philadelphia cottages, and we at the same time had had uncovered cisterns and water barrels, we would by this time have lost half our nonimmune force from yellow fever. But if we look after the cisterns and water barrels and take appropriate measures with regard to the sick from yellow fever, it is of very little importance whether we have a modern water-closet or the more primitive pit.

"What we are after is to get rid of yellow fever. We hope in the near future to have Colon filled in and good buildings and clean water-closets erected in Colon, just such as would please Mr. Bigelow, but we can not afford to wait for these desirable conditions before getting rid of yellow fever.

"What I maintain is that the results here and elsewhere in tropical sanitation have justified the measures taken, and that we should not be criticised for not having wasted our energies on measures that would have been impossible to rapidly execute, and according to the well-nigh universal belief of modern sanitarians, would have had little or no effect upon the diseases which we were endeavoring to control."

Mr. MAGOON. It is quite difficult to make an estimate as to what would have occurred in the absence of the sanitary precautions that we have taken. But while there have been many more cases of malaria than of yellow fever, of course malaria is not so deadly, and they have an absolute specific for it in quinine. That is a deadly poison to the malarial parasite, and it can be very successfully treated.

For that reason there is practically no general apprehension of danger from malaria. It is one of the things that everybody expects to have now and then and to take some quinine and get over it. If it is a bad case, they go to the hospital. If it is not, they stay at home and take the quinine.

Senator SUMMONS. Has the mortality from malaria been very great?

Senator KITTREDGE. Or, rather, reduces the amount that he receives?

Mr. MAGOON. Yes, sir.

Senator TALIAFERRO. No; I do not understand that. I understand that the figures he is giving you are the gross amounts that these different officials receive; and when he says "from which is deducted a colonel's or a major's salary" he means they draw that salary yet.

Senator KITTREDGE. That is what I was getting at—if that is true in this case.

Mr. MAGOON. Yes, sir.

Senator TALIAFERRO. Doctor Gorgas, including his salary, gets \$10,000 a year?

Mr. MAGOON. Yes, sir. Doctor Purnell, sanitary officer for the city of Panama, gets \$4,000 without any reduction. Doctor Wheeler, chief sanitary officer of the city of Colon, gets \$3,600 without reductions.

Senator KITTREDGE. They are not officers of the Army or Navy?

Mr. MAGOON. No, sir. All of the officers of the Army and Navy have their pay reduced to the extent of their pay as such officers. Now, do you wish the others?

Senator KITTREDGE. I wish you to proceed; yes.

Mr. MAGOON. H. D. Reed, executive secretary—

Senator KITTREDGE. Have you finished with the officials in the matter of sanitation?

Mr. MAGOON. Yes, sir.

Senator KITTREDGE. What about the assistants of the gentlemen whom you have named?

Mr. MAGOON. Along the line there are three of what are termed "emergency hospitals." There is a physician in charge of each one of those, who draws \$2,500. These are small hospitals, where the men are taken in case of sickness or accident, to await transportation to the larger hospitals at Ancon and Colon. There is also a sanitarium, a sort of a convalescent hospital, on one of the islands about 10 miles from the town of Colon; it is called Taboga. That is in charge of a superintendent drawing a similar salary.

Senator KITTREDGE. What about the salaries of the nurses and other employees about the hospitals and in the field?

Mr. MAGOON. Next to the superintendents and the other gentlemen whom I have mentioned I ought to include the chief surgeon at Ancon Hospital, who gets \$4,000.

Senator KITTREDGE. Who is he?

Mr. MAGOON. Doctor Herrick, a doctor from civil life.

Senator KITTREDGE. What is his compensation, you say—\$4,000?

Mr. MAGOON. Yes, sir; \$4,000. There are also two captains in the Medical Corps of the Regular Army—Captain Shimer and Captain Lister. Captain Shimer has his Army pay increased by 50 per cent; Captain Lister has a salary of \$4,000 as an expert on eye and ear diseases.

Then come what they call internes, who receive \$1,200 a year—\$100 a month, and lodging, but not board.

Then there are the nurses, 50 per cent of whom receive \$75 a month, the others, \$50 and \$60. They are graduated. Then there are what

are called orderlies. Those are principally colored men, getting from \$25 to \$40 a month.

Senator KITTREDGE. Do the nurses pay their own board?

Mr. MAGOON. No; the nurses are maintained at the hospital.

Senator KITTREDGE. Do you know how their compensation compares with that received in the States for like service?

Mr. MAGOON. It depends upon how you look at it. They say that good nurses in the States get all the way from \$25 to \$75 a week, with board—that is, where they go out into private families and do private nursing. In the hospitals, I think, the salaries are graduated. The first year they get little or nothing—that is, while they are students—the second year a little more, and the third year a little more, and then, after graduation, I think in this country they get from \$40 to \$50.

Senator KITTREDGE. What is the compensation of the large force of ordinary helpers employed in working out the scheme of sanitation and fumigation?

Mr. MAGOON. They receive from 14 to 26 cents silver per hour. They are graded.

Senator KITTREDGE. What class of laborers are they?

Mr. MAGOON. The natives, principally—that is, those who do the common work. We have some sanitary inspectors who are Americans, where we can get them. We have been filling those positions from hospital sergeants in the Army, where we could get them. We have circulated information through the Army to the effect that when the terms of enlistment of those men expire they can get employment with us. They have had a special training which makes them available and very useful to us. Those men are paid from \$75 to \$100. They are the superintendents who have charge of the gangs that do this work.

Senator SIMMONS. What work is that?

Mr. MAGOON. The work of sanitation, such as fumigation, ditching, inspecting, going about from house to house and seeing that the regulations are complied with.

Senator SIMMONS. Governor, I have seen the statement somewhere in connection with this work of fumigation and of sanitation in Colon and in Panama, that the Government employed nearly all, if not quite all, of the local physicians down there.

Mr. MAGOON. Yes, sir; not all of them.

Senator SIMMONS. And paid them as inspectors?

Mr. MAGOON. Yes, sir.

Senator SIMMONS. To direct this work?

Mr. MAGOON. No; not to direct the work. When in June we were in the midst of a yellow-fever epidemic, it was apparent that we must do everything that we possibly could. One thing was to get hold of yellow-fever patients as soon as possible, and I suggested to Colonel Gorgas that we have a house-to-house inspection daily by men who were competent to recognize this disease as early as it was possible to recognize it; at least to recognize whether anybody was sick with any kind of fever in order that they might be at least screened, if not isolated, or isolated in that way.

The corps of physicians in our employ at that time was not large enough to take men away from their regular hospital work and put them at that service, and I thereupon authorized the employment of eight native physicians in the city of Panama. I divided the town up into eight districts, and each one of them was assigned to the work of daily



inspecting that district, going from house to house. By the end of the the month of December we were confident that the emergency for that work no longer existed, and their services were dispensed with. The same thing was done in Colon, where we employed six native physicians.

Senator SIMMONS. What salaries did you pay them?

Mr. MAGOON. One hundred dollars a month.

Senator SIMMONS. Did the Government pay the whole of that salary?

Mr. MAGOON. Yes, sir.

Senator SIMMONS. Did the Government pay the whole expense of this fumigation and the other sanitary methods employed in Panama and Colon?

Mr. MAGOON. Yes, sir.

Senator SIMMONS. The municipalities did not contribute anything at all?

Mr. MAGOON. The municipalities did not contribute. They assisted us to the extent of putting their police force at our disposal, and we had to utilize their courts.

Senator SIMMONS. That was very insignificant in comparison with the force you had to employ, was it not?

Mr. MAGOON. Oh, yes; but we had to have the police, and of course their courts were utilized in the matter of enforcing fines for non-compliance, etc.

Senator SIMMONS. Do you not think the municipalities ought to bear a part of that expense?

Mr. MAGOON. If the municipalities were able it would have suggested itself to me as being equitable and proper that they should have done so. But the point of view with them is, first, that they are neither able to do it, nor do they recognize any necessity for it. They are immune from the disease. It was done entirely for the benefit of the people we were going to bring there.

Senator SIMMONS. They are immune from yellow fever, but they are not immune from malaria and other diseases that are encountered in this work, are they?

Mr. MAGOON. No. But as I say, they were neither willing nor able to do it, and it was a work which had to be done.

Senator SIMMONS. As a matter of fact, are those municipalities very poor?

Mr. MAGOON. Yes, sir.

Senator SIMMONS. Their income is very small?

Mr. MAGOON. Yes, sir.

Senator SIMMONS. Is that the result of low valuations through the State?

Mr. MAGOON. Largely. You know they do not tax real estate, for one thing.

Senator SIMMONS. They do not tax it at all?

Mr. MAGOON. There is no tax on real estate itself. They tax the improvement. Then in the case of their licensing system, while they license a great many things the amount which they charge is very low, very insignificant.

Senator SIMMONS. There is very little wealth, I suppose, in either of these cities?

Mr. MAGOON. Very little. No one there for generations has, as they put it, dared to improve his property, to build houses, and enter upon

manufacturing or upon the development of the country or the utilizing of the land because of the fear of revolution. I have asked many of them why they do not engage in agriculture. They all talk about the fertility of the soil, how everything can be raised there, and how in the interior they have a beautiful country. I never have been far into the interior; I never have been beyond what is known as the savanna, which is near the city of Panama. About 5 miles out there is a savanna that is a beautiful strip of country, and goes on without being covered with growth.

Senator SIMMONS. That is a level tract?

Mr. MAGOON. Yes, sir. It is what we call prairie in the West. It lies there with stock grazing on it, but practically nothing in the way of agriculture; and of course to a western man it is a constant aggravation to see that beautiful soil, on which you can raise at least two and occasionally three crops of corn, not utilized, especially with corn worth from 70 cents to \$1.25 a bushel. The answer which they have given me is that it is because of the fear of revolution. They say, "We undertake to raise a crop and there comes a revolution. If we support the government, the government says, 'give us what you have. You are a loyal citizen of the state; therefore what you have is of course at our disposal,' and they take it.

"If you are a supporter of the revolution, then the government says 'You are a traitor and we will take it.' The other side come along, and they say: 'Do you support the government?' 'Yes.' 'Well, then you are our enemy,' and they take it; or if you say: 'No; we adhere to the revolution,' they say: 'Well, then you are one of us; you are a brother; your property is ours,' and so it goes." That they give you as a reason why there has been no development in that country; and that is the great thing which the coming of the Americans and the entering into that property has done.

Senator MORGAN. Do those apprehensions among the people seem to continue now?

Mr. MAGOON. No, sir. There has been already a wonderful development in the interior and, in fact, all through the Isthmus. It is due to the feeling that the United States is there and that the days of revolution have ended.

Senator HOPKINS. What do you mean by "the interior?"

Mr. MAGOON. I mean back from the canal—back from the line of the railroad.

Senator ANKENY. Out of the Zone?

Mr. MAGOON. Yes; out of the Zone.

Senator HOPKINS. How far back from the Zone line?

Mr. MAGOON. Clear to Costa Rica on the one side. Some of the best country they have is up there along the Costa Rican border.

Senator HOPKINS. Is that level land that is easily cultivated?

Mr. MAGOON. They tell me that what is called the Chiriqui country—that is, that up near Costa Rica—is comparatively level. We would not call it level along the Platte Valley; but for that country it is level, tillable land, about such land as you see in Kentucky. The savannas look very much like Kentucky looks along about Louisville.

Senator HOPKINS. And you say they can mature three crops a year there?

Mr. MAGOON. They tell me that they have raised three crops of corn there. Of course that would be extraordinary.

Senator HOPKINS. Not such corn as is raised in northern Nebraska?

Mr. MAGOON. No; that is the flint corn. But two crops of corn are possible there, and with irrigation two crops would be a certainty.

Senator SIMMONS. Why do they need irrigation, with the great rainfall there is in that region?

Mr. MAGOON. Because from December to April there is absolutely no rain at all.

Senator SIMMONS. I see—about three or four months?

Mr. MAGOON. Yes, sir.

Senator KITTREDGE. What are the salaries of the judges you mentioned the other day?

Mr. MAGOON. Six thousand dollars. The chief justice gets \$6,500.

Senator SIMMONS. You say that they would have to have irrigation because of this dry season?

Mr. MAGOON. Yes, sir.

Senator SIMMONS. The balance of the season they would not require irrigation, but they could raise at least one crop without it?

Mr. MAGOON. Yes, sir; if it did not rain too much. You know there is that danger, of course—that with too much it would not mature.

Senator SIMMONS. You say that a large part of this is valley land and some of it is savanna or level land. There is no regular, sustained chain of mountains there, is there?

Mr. MAGOON. No, sir.

Senator SIMMONS. Just little spurs and peaks and knolls and things of that sort?

Mr. MAGOON. Yes, sir. While I never have seen them there are higher hills or peaks farther back from the road.

Senator SIMMONS. Are the sides of these little mountain ranges or peaks fertile?

Mr. MAGOON. Oh, yes.

Senator SIMMONS. Capable of cultivation?

Mr. MAGOON. That is, there is all sorts of tropical vegetation growing to the very top; there is very heavy vegetation all over them. They are, of course, so precipitous that they would be difficult indeed to cultivate; but there are portions of our own country and many portions of Europe where a country of that character is subjected to a high degree of cultivation and becomes very productive.

Senator SIMMONS. The natives are not likely to engage to any considerable extent in agriculture, are they?

Mr. MAGOON. Not this generation.

Senator SIMMONS. Do you consider it at all feasible for Americans to carry on farming operations there with other than native labor?

Mr. MAGOON. Such as we would term farming, that is, raising grains, etc.?

Senator SIMMONS. Well, farming so as to make the things that can be produced on that land.

Mr. MAGOON. I think so; yes. I think that we will see an agricultural population there. I think it will be left over from the employment by the Commission. I think a good many Americans will go there, originally attracted by the work on the canal, and then will go into agriculture.

Senator SIMMONS. Have any Americans up to this time leased or purchased lands there for agricultural purposes?

Mr. MAGOON. Some of them have, yes; for the purpose of market gardening.

Senator SIMMONS. Are they carrying on at this time any gardening of that sort?

Mr. MAGOON. There a good many market gardens there; not as many as I would like to see, but there are market gardens there, and I think there are two that are conducted by Americans; but the work is performed by the natives.

Senator MORGAN. I suppose the Chinese are the real market gardeners there?

Mr. MAGOON. Yes; they are the real market gardeners.

Senator HOPKINS. What class of vegetables do they raise?

Mr. MAGOON. They raise an inferior quality of practically all of the vegetables of the Temperate Zone, except potatoes; I have not seen any of those. Our potatoes all come from the States. But they raise tomatoes and cucumbers and sweet corn, that is, what they call edible corn; what we call flint corn, or squaw corn, in the Missouri country.

Senator SIMMONS. Would it not be a very simple matter to raise sufficient vegetables to supply the natives on the Zone?

Mr. MAGOON. Well, market gardening is a hard field of endeavor anywhere, and it is especially hard when you have to overcome the tropical growth. Aside from that, market gardening is market gardening; the soil yields all right.

Senator SIMMONS. Does it cost any more to clear up those lands there and put them in a state of cultivation than it would virgin lands here in this country?

Mr. MAGOON. No, I think not; not timber land. There is a constant war. You have to go over it every year, you know; you have to clean it up every year.

Senator SIMMONS. Now, governor, have you done anything toward encouraging outsiders to come in there and engage in this work?

Mr. MAGOON. We have reduced the price of the lands to be rented, and made it one-half what the French company had charged. We have advertised and sought as much as we could to induce people to engage in market gardening. But there has been such a tremendous demand for labor on the canal and on our work of construction, and it was so much easier to make money working eight hours a day for the Commission than working eighteen hours a day out in the sun, market gardening, that I do not think we have increased the actual output of farm produce of that character to any appreciable extent at all.

Senator MORGAN. Speaking of working eight hours a day, governor, do you think the eight-hour law applicable to any of the labor in the Isthmus is conducive to the success and prosperity of the work?

Mr. MAGOON. I do not.

Senator HOPKINS. Right there, I would like to have you give your reasons for that statement in your answer to Senator Morgan.

Mr. MAGOON. I think it is manifest that eight hours a day from a man does not produce as much as ten hours a day, to start with.

Senator HOPKINS. Of course, you know that the laborers in the North here claim that eight hours' work a day is as productive, in the long run, as ten.

Mr. MAGOON. Well, when I was a laboring man—and I was a laboring man—I know that when I was made to work ten hours I produced

more than I did when I worked eight. But there are some other reasons.

Senator HOPKINS. The reason I asked you for that statement was this: I wanted to know whether labor conditions are different there on the Zone than they are here. You, of course, recognize, as every man does, that the Government has fixed eight hours as a proper period for a day's labor.

Mr. MAGOON. Yes, sir; but I do not believe, and I never did believe, Senator, that that law was intended to apply to Government work outside of the boundaries of the United States as they were fixed at the time of the passage of the act; but that it relates to and was intended for the benefit of the citizens of the United States, just as the right of franchise and numerous other benefits which the Government has established and conferred upon them were.

That law, to start out with, did not apply to work down there. The first objection which became apparent was the change in the method to which those people were accustomed. They were accustomed to get out early in the morning, as soon as it was daylight, and to this day they go out there and sit down on the work, waiting for the time to come to commence their work—waiting for 7 o'clock to come. Their method of living is this: They rise in the morning and take what they call coffee—it is practically a cup of coffee—and perhaps a cracker, perhaps a banana, or something of that sort, and go out to their work. If the spirit moves them they go to work, of course. But the variation, the starting in to say, "You do not have to work but eight hours," was a let-down, even from the limited standard to which they were accustomed and with which they were willing to comply. It was a good deal as if you were suspended by something and let go. That is what they did, and instead of increasing their efficiency for the entire eight hours it decreased their efficiency for the eight hours which they did labor.

Senator KITTREDGE. On that subject, would the elimination from the Zone of the eight-hour law and the alien labor laws as applied in this country in any manner interfere with the laborer in this country, in the United States?

Mr. MAGOON. I do not see how it could; no, sir.

Senator HOPKINS. Your statement, then, Judge, is that the labor that you get there on the Zone is of such a character that it is not prepared to receive the benefits that are supposed to be derived from an eight-hour system?

Mr. MAGOON. No, sir.

Senator HOPKINS. There is nothing that they do, either before they commence in the morning or after they get through at night, to improve their condition?

Mr. MAGOON. No, sir.

Senator HOPKINS. As is supposed to be done by the laborers in America?

Mr. MAGOON. No, sir. They sleep, they eat, they sing, they have their social engagements back and forth; but that is all. They just have two hours more of that.

Senator HOPKINS. In point of intelligence, can the men that do the manual work along the line of the Zone be compared with the laborers here in the States?

**Mr. MAGOON.** In the matter of efficiency, they can not be. They do not accomplish one-half of what is done by what we call common labor here.

**Senator HOPKINS.** In point of general intelligence, are they equal?

**Mr. MAGOON.** In point of general intelligence, I will state that all or practically all of the Jamaicans and Barbadians have an education. Under the school systems of Great Britain, which have been enforced there, they have all or practically all learned to read and write. They write very well, and in that way appear to be very intelligent. I might give you an illustration of what I mean:

The editor of one of the papers in Jamaica called on me the other day, just before I came up here, and said that he had heard so much said about, first, the inefficiency of Jamaican labor (which they could not understand) and the charge that they were not being well cared for, that he had come over to investigate, and to let his readers know just what the situation was. He said: "I went out to Cristobal. I saw the statue of Columbus that stands there. I went over to make a closer inspection. There were five men at work doing something with the chain.

(I might say that there are two big chains there that I think were intended to hold the statue down when it was put up. I think the French thought that possibly a wave or something of the kind would damage it, but at any rate there are two big chains that come over the base of the statue.) He said: "They were doing something with one of those chains, and I stood there for some little time, I do not know how long, but while I was standing there the only thing that those men did was to engage in a discussion as to whether there should have been a king in Judah after the coming of Christ."

Now, I do not mean to say that their ordinary topic of conversation reaches as high a level as that, but they are educated men, and they are especially well advised as to their rights as British subjects and as to the Bible.

**Senator SIMMONS.** Governor, I want to ask you a question with reference to some statements made by Mr. Wallace. Mr. Wallace said that about 10 per cent of the Americans down there were employed in superintending and directing, overseeing the colored force of manual laborers; and he expressed the opinion that if the eight-hour law was abolished as to the common laborers it would be necessary also, in order that it might work out in practice, that it should be abolished as to that part of the Americans who were employed in directing and overseeing the work of this force of manual laborers.

**Mr. MAGOON.** Yes, sir.

**Senator SIMMONS.** What is your opinion about that?

**Mr. MAGOON.** I concur with Mr. Wallace's opinion about that. Take, for instance, the illustration which he gave, or take another one. Take, for instance, a train crew that are hauling dirt; take a steam shovel, and the trains that supply it. In all likelihood the members of the steam-shovel gang would be Americans. In all likelihood the engineer and conductor, the men in charge of the train taking the dirt away, would be Americans; and the men who took care of the waste would be aliens. They could do nothing if the steam shovel was not working or if the train was not running.

**Senator KITTREDGE.** What wages do the foremen of the class you describe receive?

Mr. MAGOON. I could not say, as to those engaged in the construction. Of course they vary considerably. In the construction department I could not say. In my own department it would be from \$75 to \$100 per month.

Senator MORGAN. Governor, in practice is the eight-hour law applied in the Isthmus?

Mr. MAGOON. In practice?

Senator MORGAN. Yes.

Mr. MAGOON. Yes, sir.

Senator MORGAN. To all classes of employees?

Mr. MAGOON. Yes, sir.

Senator MORGAN. Aliens and citizens of the United States?

Mr. MAGOON. Yes, sir.

Senator MORGAN. And also to the silver men and the gold men?

Mr. MAGOON. Yes, sir.

Senator MORGAN. They all work under the eight-hour law?

Mr. MAGOON. Yes, sir. Of course the clerks in the offices do not work eight hours—that is, the clerical force; they work seven hours.

Senator MORGAN. They are not required to?

Mr. MAGOON. No, sir; they work from 8 until 12, and from 2 until 5.

Senator MORGAN. Does that mean eight hours of daily work?

Mr. MAGOON. That means eight hours of work any time in the twenty-four hours, or whatever time they are called upon to work.

Senator MORGAN. Under the eight-hour law, could you go and call a man up out of bed and tell him to go to work at 8 o'clock or 10 o'clock at night, or at any time you choose to put him to work?

Mr. MAGOON. I think you could, in the case of engineers or firemen, for instance; but we have to have night watchmen and things of that sort; their regular employment is to stay on duty from midnight, or possibly from 7, 8, 9, or 10 o'clock.

Senator MORGAN. And when the hour arrives to quit work, if there is no relief at hand, they quit and go off and leave everything? They have a right to do it?

Mr. MAGOON. Well, yes; that is their employment.

Senator MORGAN. You have no right to hold them. Now, is it practicable, on a work like the Panama Canal, to keep things in movement, to keep the work progressing, when men have a right to drop their work at a particular hour of the day and go off and leave it in just the shape that it is in at that time?

Mr. MAGOON. Of course, if they do it, it is not. Of course it is not practicable; but there is a possibility of it. In that connection I heard a story of an American engineer who was superintending the rearing of a derrick. He had some aliens and West Indians at work holding the ropes, at work pulling up the derrick, and he was around there superintending it. The whistle blew for breakfast, as they call it there, the noonday meal; and the West Indians, just exactly as a child would have done, without the slightest idea of doing any damage, simply quit; they let go of the rope, and the apparatus fell down and smashed the engineer and smashed the derrick.

Senator MORGAN. In doing this work on the isthmian canal we are going to be half as long again, if not twice as long, in doing it if we do not work night reliefs?

Mr. MAGOON. I have no doubt that night reliefs will expedite the work.

Senator MORGAN. Yes, very greatly. Do you understand, in the application of the eight-hour law to men who are engaged to do work in daylight or men who are engaged to do work at night, that you have to have it arranged so that the time of the day or the time of the night in which they are doing eight hours' work is prescribed in advance?

Mr. MAGOON. I do not so understand the eight-hour law. Possibly I do not understand your question; but what I understand is that you can work a man eight hours at night just the same as you can work him eight hours a day—that is, you are at liberty to contract with him to work at night or to work in the daytime, to make a contract with him to do that.

Senator SIMMONS. For any eight hours in the twenty-four?

Mr. MAGOON. Yes, sir; that is it.

Senator MORGAN. That is the proposition.

Senator SIMMONS. And he is not permitted to work more than that, although you might be willing to contract with him to do so, is he?

Mr. MAGOON. No, sir. We have plenty of applications; for example, from the carpenters down there, and we stand in great need of the services of carpenters. They have applied time and again, in writing and personally, for the privilege of working overtime—of working more than eight hours—and getting, of course, overtime pay. But we consider ourselves, under the Attorney-General's opinion, as being bound by the eight-hour law, and that it was contrary to law to permit those men or to contract with them to work more than eight hours.

Senator MORGAN. And you are under penalties if you do it?

Mr. MAGOON. We are liable to indictment.

Senator MORGAN. What is the punishment for letting a man work down there?

Mr. MAGOON. It is fixed by the United States statute. I have forgotten; I think it is a fine, and possibly imprisonment.

Senator SIMMONS. There have been estimates given to the committee and to the public of what it would cost to construct a canal there. I want to ask you if those estimates have not all been based on efficient labor—that is, the same degree of efficiency in the labor employed in the construction of the canal that we have in this country?

Mr. MAGOON. I think not. I do not think that there was possibly as much increase made by reason of the inefficiency of the labor there as the fact would require, but I think that all of the estimates made some allowance for it. In the case of the French estimate, they knew of it, of course, and I think that the estimates made by Mr. Stevens and Mr. Wallace took into consideration this inefficient labor, because it was so manifest. It was so obvious, and you would realize it after being upon the Isthmus such a short time, that I think they must have done so, although I have never heard definitely.

Senator SIMMONS. Mr. Wallace and Mr. Shonts both, I think, expressed the opinion that the efficiency of the labor you are using out there was not more than 25, or certainly not more than 33½, per cent, of the efficiency of our labor. Do you mean to say that in this estimate they have taken that degree of inefficiency into account?

Mr. MAGOON. No, sir; I say that I do not think that they have taken enough, and I do not know that they have taken any; but it seems to me that anybody who has been down there long enough to make it possible for him to make an estimate, necessarily could not avoid tak-



ing into account, in making the estimate, the inefficiency of the common labor.

Senator HOPKINS. Mr. Simmons, does not the testimony of both Mr. Stevens and Mr. Shonts show that it was based on the labor they had there?

Senator SIMMONS. I think not.

Senator HOPKINS. Do you not remember that they stated that the Culebra Cut—

Senator SIMMONS. That has been in my mind a great deal, and I concluded that they did not take that into consideration.

Senator HOPKINS. They figured on the actual cost, you know, of the removal of a cubic yard in the dry season and in the wet season; and I assumed that of course that was taken into account.

Senator TALIAFERRO. They gave the figures as 40 and 80.

Senator SIMMONS. They could have made no calculation based upon that, because the cost of removing a cubic yard from that cut, under the experiments made by Mr. Wallace, ranged all the way from 43 cents to \$1.50, so that it would have been impossible to have made much of a calculation based upon that.

Senator KITTREDGE. Senator Simmons, that subject is covered completely in the report of the consulting engineers.

Senator SIMMONS. It is? Does the report show upon what labor basis this estimate is made?

Senator KITTREDGE. Yes, sir.

Senator SIMMONS. Is it upon the basis of the labor that they are now using?

Senator KITTREDGE. I think we ought not to discuss that now.

Senator SIMMONS. Very well.

Senator HOPKINS. I do not suppose, Governor, you have anything to do with that branch of the work?

Mr. MAGOON. No, sir.

Senator MORGAN. Governor, I wish to ask you, if these gentlemen are through, about the labor question; some questions about the salaries, first of all.

Senator KITTREDGE. Senator Morgan, I was taking up that matter, and this is digression. I have no objection to your going on, however.

Senator MORGAN. The salary question?

Senator KITTREDGE. Yes.

Senator MORGAN. I want to ask one question only. I see that the salaries down there for the medical corps, including all, from the highest to the lowest, are quite an advance upon the army and navy salaries.

Mr. MAGOON. Yes, sir.

Senator MORGAN. About what per cent; 50 per cent advance?

Mr. MAGOON. No. Colonel Gorgas has a much larger advance than that. He has a colonel's pay in the Army, and he is getting \$10,000 there. Doctor Carter is getting a major's pay, and he is getting \$7,500 there.

Senator MORGAN. The service in the Isthmus, as I understand it, from all the facts, is not more onerous and certainly not more dangerous to a naval officer, for instance, than service at sea, taking the risk of battle and the risk of wrecks from storms and the risk of disease from passing through different climates. The service in the Isthmus is not more dangerous than service at sea, is it?

Mr. MAGOON. I should not think it was any more dangerous than service in battle.

Senator MORGAN. Well, is it any more dangerous than service in storms?

Mr. MAGOON. No; possibly not more than service in storms.

Senator MORGAN. Or service in passing through infected regions of the country—ports that have epidemics in them?

Mr. MAGOON. No, sir. Some of the officers of the United States Navy vessel *Boston* contracted yellow fever in the Bay of Panama. One of the officers had it and several of the attendants had it.

Senator MORGAN. The same thing is true in regard to the Army. Men are liable to do service in the Philippines, for example?

Mr. MAGOON. Yes, sir; but I do not think there is any service anywhere in the Army or in the Navy that calls for as much work in time, effort, exertion, skill, and efficiency as the service on the Isthmus requires.

Senator MORGAN. Take one of our eminent and popular practitioners of medicine in Washington—he works all the time, night and day, that he has physical energy to devote to it?

Mr. MAGOON. Yes, sir.

Senator MORGAN. That man renders more labor than any man that is employed on the Isthmus, does he not?

Mr. MAGOON. I doubt it.

Senator MORGAN. You do?

Mr. MAGOON. Yes, sir; I doubt it very much; for those men work from daylight until 5 or 6 o'clock, anyhow.

Senator MORGAN. There must be an enormous amount of sickness there, then, if they are employed in that way.

Mr. MAGOON. No; they are at work preventing sickness, and that is why it is. There is not such an enormous amount of sickness there, but they are applying preventive measures rather than curative remedies.

Senator MORGAN. Oh; it is a case of prevention?

Mr. MAGOON. Yes, sir; that is what requires such constant vigilance.

Senator MORGAN. Prevention is not very scientific, is it? It consists of burning sulphur, etc.?

Mr. MAGOON. Well, there is no occult alchemy about it, of course.

Senator MORGAN. You go into a house and burn some sulphur, or whatever it is you burn?

Mr. MAGOON. Yes.

Senator MORGAN. And that is fumigation?

Mr. MAGOON. Yes.

Senator MORGAN. Any common native can do that, can he not?

Mr. MAGOON. He can burn the sulphur.

Senator MORGAN. Yes.

Mr. MAGOON. We had one burn the house.

Senator SIMMONS. They can do that, too.

Mr. MAGOON. But, really, the fumigation of a house is not simply taking a pot of sulphur and touching a match to it, you know. The windows down there are simply openings in the wall; they have no glass. The doors are simply doors. You have got to take a house and cover up all the cracks.

Senator MORGAN. But it does not require a doctor to cover cracks; a carpenter can do that, can he not?

Mr. MAGOON. It requires attention to it to see that the cracks are covered. We use paper and paste to cover them.

Senator MORGAN. Yes, I know; but I am trying to get at some reason for putting up these salaries at the Isthmus from 30 to 50 per cent above the salaries paid in the Army in time of war and peace and in the Navy in time of war and peace. I want to find some reason for it if I can.

Mr. MAGOON. If you will permit me to go back to your illustration of a Washington physician, I will say that I do not suppose there is a physician of the character you name that does not make twice or three times as much in private practice as the salary that is paid Colonel Gorgas. I do not suppose that there is a hospital (certainly not in the United States and I doubt if there is one anywhere) where the director or superintendent is paid as small an amount as is paid there, comparing them with the compensation that is received by doctors of their experience and standing. Colonel Gorgas has a world-wide fame as a sanitary officer, and there is not a physician in the world who has equal standing with Gorgas who is not getting a great deal more compensation than is paid to him.

Senator MORGAN. Would not that be an argument in favor of raising the salaries of all the surgeons in the Army and the Navy until they could have a compensation equal to that paid civilians of equal skill and ability?

Mr. MAGOON. I should certainly offer no opposition whatever to that proposition.

Senator MORGAN. You see, I happen to be on the other side of that line. I am in favor all the time of reducing the expenses of this Government to the capacity of the people, through their tax-paying duties, to take care of them in a reasonable way.

Senator HOPKINS. Governor, why are not these men taken from civil life rather than the Army and the Navy?

Mr. MAGOON. Because the Army and the Navy have had the experience in the cleansing of Cuba.

Senator HOPKINS. I know; but that information was as familiar to a man like Doctor Sowers, for example, of Washington, as it was to Colonel Gorgas. I am not speaking of Colonel Gorgas in particular, but I am speaking generally of the men that you have there. Your statement shows that you have a large number of men from the Army who are filling these offices.

Mr. MAGOON. Yes—some army, navy, and medical and hospital corps men together.

Senator HOPKINS. Yes.

Mr. MAGOON. The reason why they are there now is that I found them there; but if I had not found one of them I should have said to Colonel Gorgas, "Whom do you want to put this work through?" And I think every one of those men that are there were of Colonel Gorgas's selection as his own assistants. I would give him the free hand.

Senator HOPKINS. It would be natural for him, of course, to take men in his own service.

Mr. MAGOON. Yes; men that he was familiar with, and knew what they could do.

Senator MORGAN. I will state that I have a very high opinion of Colonel Gorgas. He is my personal friend, and his father and his mother were my personal friends, and I regard him as a very distin-

guished and a very able surgeon. But General Butler, of Boston, Mass., was not my personal friend, nor my political friend, nor was he my friend at the time the war was going on; but did he not do in New Orleans, with volunteer forces, a work that was quite as successful as anything that Doctor Gorgas ever did in Cuba while the war was going on? Did he not clean that city and expel yellow fever from it absolutely?

Mr. MAGOON. Will you permit me to ask whether you know the amount of local contribution which he forced from the citizens of New Orleans to accomplish that work?

Senator MORGAN. I expect he did that, just as, down here, they force from the Government all that is necessary.

Mr. MAGOON. Do you recall the amount of the contributions he forced?

Senator MORGAN. I do not know anything about the amount; I have never heard of it; but I think he must have gotten pretty poor scrapings if he got it according to the measure of their poverty.

Mr. MAGOON. No; he tells in his book where he got it, and how much, and how he got it.

Senator MORGAN. I have not read his book, and I do not think I ever will, but there are the facts, and the record stands in favor of General Butler's plan of cleansing that city and keeping the yellow fever out of it.

Senator HOPKINS. What I wanted to get at, Governor, is whether you believe that it is in the interest of economy and in the interest of the service to maintain the army and navy people there rather than to take them from civil life?

Mr. MAGOON. Yes, sir; for the present.

(The committee thereupon took a recess until 2 o'clock p. m.)

#### AFTER RECESS.

#### STATEMENT OF CHARLES E. MAGOON, ESQ.—Continued.

Senator SIMMONS. Senator Kittredge, will you let me ask one or two questions of the witness?

Senator KITTREDGE. Certainly.

Senator SIMMONS. Governor, getting back to this matter of hospitals, you said that the Government had a system of hospitals out there—sanitariums or sanitoriums, or whatever they are called?

Mr. MAGOON. Yes, sir.

Senator SIMMONS. I wanted to ask you if the Government admitted natives into those hospitals indiscriminately along with its employees?

Mr. MAGOON. We did, first; yes, sir.

Senator SIMMONS. Do you not now?

Mr. MAGOON. Well, in a way we did. I will make a statement in respect to that. At first the Commission authorized the taking in of the sick wherever they were, the principal purpose being to promote the public health, of course; also to permit our medical corps to study and investigate the diseases local to that community. Of course that involved an expense. Trying to reduce to a minimum the charge against the Government of the United States we agreed upon the plan whereby the Panamanian Government was to pay a slight expense for the care of their indigent sick, and to the extent of their ability, which

we found was very limited; the municipalities of the Zone are required to pay for indigent sick. Where private persons are able to pay they are charged a hospital fee. That fee is collected and turned into the Treasury of the United States. The employees and their families are given free hospital treatment unless they desire special care—for instance, a room instead of a cot in a ward. They pay then for the room.

Senator SIMMONS. I had understood that, under some arrangement that you had with the Government of the Republic of Panama, you not only admitted the indigent sick, but that you admitted the indigent insane?

Mr. MAGOON. Oh, yes.

Senator SIMMONS. And that you had some arrangement by which you had practically taken over the hospital business of the Isthmus?

Mr. MAGOON. I will go on further: There was in the town of Panama a hospital called San Tomas, a hospital run by the Sisters of St. Vincent de Paul, as were all of their hospitals. There was also another hospital which had been used for their soldiers, a sort of a military hospital, and that hospital had become a place for the insane. They had also, adjacent to the city of Panama, down on the seashore, right on the suburbs of the town, a lazaretto for the lepers.

On Secretary Taft's visit it was agreed that we should build a hospital for the insane, a hospital or retreat for lepers, and a hospital for indigent chronic cases. We found it impossible to build those immediately. The scarcity of building material and of hands and the necessity for providing quarters for our help rendered it impossible to build those institutions prior to the time when an arrangement was made for making a slight change in that.

The President of the Republic of Panama was a physician before he was elected to his office, and is, of course, yet. He was interested in hospital work, and was quite anxious that San Tomas Hospital, which was a general hospital, should be restored and put in shape to serve as a hospital for the Republic of Panama. He also thought it wise to restore the other hospital to which I have referred and make that a hospital for the chronic sick of the Republic of Panama.

Negotiations were opened with my predecessor looking to the restoration of the San Tomas hospital, but were not completed. It was completed during the past year, and under that arrangement he turned over to us \$85,000 in silver; I think it is, in round numbers, equal to one-half of that amount in gold. We were to restore San Tomas hospital, making a 300-bed hospital out of it, and use that for the sick from the town and Republic of Panama that would otherwise go to the hospitals within the Zone. Upon the repairs being completed at San Tomas the Commission participates in the expense of maintenance; that is, one of our surgeons or physicians is made superintendent of it, and we also pay for two internes and for three nurses. The balance is maintained at the expense of the Panama Republic, and the administration of affairs is conducted by a board of directors, two of whom are appointed by the governor and three by the President of Panama.

There were certain incomes there which were devoted to Panamanian institutions, principally the proceeds of certain stock which had been donated to those hospitals by the lottery concern. Of course we had prohibited the sale of lottery tickets or the holding of lotteries in the Zone, and nobody seemed to be willing to take the proceeds of the lot-

tery and apply them to one of our hospitals. It was really, however, given to what is known as the Strangers' Hospital and to the Orphan Asylum, and those funds will, by agreement with the lottery people, go to the new San Tomas Hospital.

Senator SIMMONS. This agreement comprises practically all the hospital service upon the Isthmus, does it not?

Mr. MAGOON. They take the whole thing, you mean?

Senator SIMMONS. Yes.

Mr. MAGOON. Under that, then, the Panama Republic will have San Tomas, a 300-bed hospital, which is available for us at any time when we want to use it, and will relieve Ancon hospital immediately of the patients that are in Ancon hospital that come from the territory of the Republic or the city of Panama.

Senator SIMMONS. In substance, then, I understand that this Government is either maintaining at its own expense or it is maintaining in conjunction with the Panama Government all the hospitals for the insane and the indigent sick upon the Isthmus?

Mr. MAGOON. Yes, sir. Such of them as come from the Republic are paid for by the Republic.

Senator SIMMONS. These institutions that are conducted jointly are under the joint control of the two Governments?

Mr. MAGOON. No, sir; except in this one, San Tomas. The others are exclusively under American control.

Senator SIMMONS. That is under the joint control of the two Governments?

Mr. MAGOON. That one hospital, San Tomas, yes.

Senator SIMMONS. And the expenses are contributed to by each of the two Governments?

Mr. MAGOON. Yes, sir.

Senator SIMMONS. Well, now, the only other question I wanted to ask you was this: From your testimony it appears that we have practically taken charge of the educational work upon the Isthmus?

Mr. MAGOON. No; not on the Isthmus. Oh, no. Not in the cities of Panama and Colon.

Senator SIMMONS. There are some schools maintained there that we have nothing to do with?

Mr. MAGOON. Oh, yes; the Panama Government has a very good school system, which has recently been inaugurated by a religious order called the Christian Brothers, if I remember rightly. They are brought from Europe. While I visited the schools once or twice, I have not studied the methods which they follow in the schoolroom, but I am much impressed with one method which they adopt, which is taking their classes out to show them the practical workings of things. For instance, they will take them down to a ship, and show them a ship, and go all over it with them. They will take them where our men are at work on the sewers or water pipes to show them that. They will take them to where the pavement is going down to show them that. They will take them where the men are building roads, and walk out there with them, and explain it to them.

Senator SIMMONS. I had misunderstood you, then. I will qualify the question that I was going to ask. As I understand, then, we are to a large extent bearing the expense of the education of the children upon the Isthmus?

Mr. MAGOON. Only within the Zone.

Senator SIMMONS. Only within the Zone?

Mr. MAGOON. That is all. We are contributing nothing outside of it.

Senator SIMMONS. But you are doing that work within the Zone?

Mr. MAGOON. Yes, sir.

Senator SIMMONS. And your schools are open to native Panamanians also, as well as to our people?

Mr. MAGOON. Who live on the Zone; yes, sir.

Senator SIMMONS. We are also doing, at the expense of the Government, the great bulk of the sanitary work that is being carried on, not only upon the line of the canal as projected, but at the cities of Panama and Colon?

Mr. MAGOON. Yes, sir; all of it.

Senator SIMMONS. We are, then, furnishing most of the hospital service there, either independently or in conjunction with the cities of Panama and Colon?

Mr. MAGOON. Yes, sir.

Senator SIMMONS. That embraces, then, three things, and it embraces a very large part of the functions of the Government?

Mr. MAGOON. Yes, sir.

Senator SIMMONS. I wanted to ask you this question: What is the disposition of the people of the Republic of Panama with reference to a union with this Government, if you have heard any expression on that subject?

Mr. MAGOON. A permanent union, do you mean, to annex the Republic of Panama?

Senator SIMMONS. To annex the Republic of Panama to the Government of the United States.

Mr. MAGOON. The only expression of views which I have ever heard on that subject arose last summer. It was published in the papers in the States that there was a plan contemplated of combining the Republic of Panama with the Republic of Costa Rica, and it was alleged that Señor Santiago de la Guardia, the secretary of foreign affairs for the Republic of Panama, was about to make a visit to Costa Rica for the purpose of bringing about that union. So far as I was able to ascertain, no one down there favored that proposition, and the frequent remark was: "If we are going to be attached to any government we want to be attached to the United States." But there was no manifestation of a desire to lose their independence or to surrender their independence.

Senator SIMMONS. Do you mean their independence or their autonomy?

Mr. MAGOON. Their autonomy and independence. They are an independent sovereignty now and have not the slightest idea of surrendering it.

Senator SIMMONS. You think there is no sentiment in favor of annexation?

Mr. MAGOON. I do not think so; not at this time. The sentiment would take this form if it is ever done: "That is the consolidation that we want." I found this also, that they are very anxious to interest American capital. They are anxious to have American institutions down there, the idea being that if a serious difficulty should ever be encountered it would be gratifying to them if there were no other nation than the United States that would have interests in the Republic which would justify interference.

Senator SIMMONS. That is practically guaranteed by our treaty.

Mr. MAGOON. What I mean to say is, for instance, if the citizens of some other nation had enterprises, such as their electric-light plant, for example, and supposing that were a corporation or a company composed of other than American citizens or other than Panamanian citizens, they would prefer that American capital should be there.

Senator SIMMONS. In taking up this burden and incurring this expense in connection with sanitation and education and caring for the sick and the insane, whether it be the sick on the Isthmus or in these two municipalities at each end of the canal route, that has been done as a matter of self-protection?

Mr. MAGOON. Exactly.

Senator SIMMONS. Because it was to the interest of the United States, in connection with this great enterprise going on?

Mr. MAGOON. Yes; it was not a philanthropic movement.

Senator SIMMONS. I will ask you if we will not, as time goes on, have to take a larger hand in the public affairs on the Isthmus than we are now taking in order to protect ourselves against disease, and to protect our interests in connection with the construction of the canal?

Mr. MAGOON. I have not the gift of prophecy, Senator. I do not know.

Senator SIMMONS. I am simply speaking of the possibilities.

Mr. MAGOON. I should say that the probabilities are that we are exercising now as many powers as we will ever be called upon to exercise, unless there should be a revolution down there, in which event we would have to exercise additional powers.

Senator SIMMONS. In which event we would have to take a hand?

Mr. MAGOON. Yes; we would have to take a hand.

Senator TALIAFERRO. Governor, I do not understand from your testimony that we are bearing any of the expense of taking care of the Panamanian sick or insane?

Mr. MAGOON. Yes, sir; we are.

Senator TALIAFERRO. I understood that the Government of Panama paid for those of her citizens that we took care of in our hospitals who were not at work for the Government on this canal?

Mr. MAGOON. Yes, sir.

Senator SIMMONS. I understood you to say that the contribution was a slight one?

Mr. MAGOON. Yes. For instance, it would not bear any proportion to the actual expense—I mean to say, the expense of maintaining the institution. For instance, Ancon Hospital—I do not know how much it cost. You hear all sorts of statements as to what the French put in it, but, say, a couple of million dollars, and we are obliged to maintain that hospital and an expensive staff for our own purposes. Take the case of a Panamanian in there for treatment, and the actual expense would not be more than the medicine or the food that was administered to him, because it is a running concern and we would have to maintain it at its present state of efficiency, anyhow.

Senator TALIAFERRO. No charge is made against that patient for anything but medicines and food?

Mr. MAGOON. Oh, yes; if he is able to pay, there is a charge. If he is not able to pay, then the charge is made to the Panamanian Government.



Senator TALIAFERRO. That brings us back to the proposition, then, that the Panamanian Government really pays for their sick or insane that we take care of in the hospitals?

Mr. MAGOON. Yes, sir.

Senator TALIAFERRO. Except such as are at work on the canal or on the railroad?

Mr. MAGOON. Yes, sir.

Senator TALIAFERRO. So that we are not charged, really, with the expense of taking care of the Panamanian sick or insane?

Mr. MAGOON. No, sir; but we assume the responsibility; that is what I understood the Senator's question to be.

Senator KITTREDGE. Can you, at a later date, Governor, furnish a complete list of all the employees upon the Isthmus connected with the governmental end of the enterprise?

Mr. MAGOON. Yes, sir; I will do so, except in the common-laborer roll.

Senator KITTREDGE. I do not ask for that.

Mr. MAGOON. Yes, sir. I can state, possibly, a little more in this connection which may be of interest to you. There are employed in the department of government and sanitation a total of about 2,800 people. Of that number, something over 600 are what we call gold employees; about 550 have monthly salaries in silver; the remainder, about 1,600, are hour men, that is, they are paid by the hour in silver. What I suppose you want is the gold roll, the monthly salary men, not the hourly men?

Senator KITTREDGE. That is right.

Mr. MAGOON. Yes, sir.

Senator KITTREDGE. And also the salaries that they, in fact, receive.

Mr. MAGOON. Yes, sir.

Senator KITTREDGE. Does that include all the officials of the character you have mentioned, connected with your office?

Mr. MAGOON. Yes, sir.

Senator KITTREDGE. And the work of sanitation?

Mr. MAGOON. Yes, sir.

Senator KITTREDGE. And the courts?

Mr. MAGOON. It will include the executive office, the health department, the police, the department of revenues, and the courts and district attorney.

Senator KITTREDGE. In what manner did these employees receive their appointment? I am referring, now, especially to the clerical force.

Mr. MAGOON. When the Commission first took hold down there, they were selected in my department very largely by General Davis, who was the governor. Colonel Gorgas, who was the head of the department of health, had a very large hand in selecting his principal assistants. I think it was in August of 1904 that all those positions were put under the civil service by the President, and all clerical positions, at least since I have been there, have been appointed by the Civil Service Commission, with the exception that during the period of yellow fever we could not get stenographers and we could not get clerks and we picked them up down there.

Senator MORGAN. Do you mean to say appointed by the Commission or recommended by the Commission?

Mr. MAGOON. We went to the civil service for them. If we wanted a stenographer, we advised the Commission that we wanted so many stenographers, and they would go to the Civil Service Commission and the Civil Service Commission would select them.

Senator MORGAN. And you would take them, as a matter of course?

Mr. MAGOON. Yes, sir.

Senator MORGAN. You did not have much option about it?

Mr. MAGOON. No, sir.

Senator MORGAN. You did not have any?

Mr. MAGOON. No, sir; up to a very recent time we were very glad to get those who would come there. I know at one time there were over seventy stenographers who were invited to accept positions on the Isthmus and declined.

Senator MORGAN. So that, under the conditions as they existed, the appointments of stenographers and of the clerical force were made through the Civil Service Commission from here?

Mr. MAGOON. Yes, sir; and that goes up higher. For instance, all our internes, our nurses, and our physicians.

Senator MORGAN. Physicians?

Mr. MAGOON. Yes, sir; now. We apply to the Civil Service Commission, unless we want a specialist. As, for instance, we wanted a man to work the X-ray machine recently.

Senator MORGAN. Yes.

Mr. MAGOON. And by the tolerance, I suppose, of the Civil Service Commission we were allowed to select.

Senator MORGAN. Then, practically, the appointment of officers in the Isthmian Zone is under the control of the Civil Service Commission here as to the classes of officers that you have referred to?

Mr. MAGOON. Yes, sir; of my department. I believe recently there has been some arrangement whereby the engineers and certain of the steam shovel men, Mr. Stevens's men, whom he goes to the railroads for, you know, who are men who could not pass a civil-service examination, but who can do just exactly what he wants done, can be selected.

Senator MORGAN. Why could they not pass a civil-service examination?

Mr. MAGOON. I presume some of them have been at work about iron and doing heavy work until there are knots on their fingers so that they would not be able to hold a pen.

Senator MORGAN. They are not scholars enough?

Mr. MAGOON. No, sir.

Senator MORGAN. Would they not find difficulty having commissioners to examine them who would know enough about the business to ask them the questions?

Mr. MAGOON. I do not know about that.

Senator KITTREDGE. Governor, how do the wages paid these employees on the Isthmus compare with those they received in the States?

Mr. MAGOON. I think that they run about 33½ per cent higher; from that to 50 per cent—no, about one-third higher.

Senator KITTREDGE. Will the statement that you are to furnish indicate that, or enable us to figure out the percentage of increase?

Mr. MAGOON. No, sir; it would be quite impossible. Take a stenographer, for instance. Where are we going to locate him? In my section of the country I could probably hire a stenographer for much

less than you could hire one in Washington. Then, you take individual stenographers, and there is a vast difference between what they get.

Senator HOPKINS. What is the highest priced stenographer, and what is the lowest, on the Isthmus?

Mr. MAGOON. I think the lowest priced stenographer that we have gets \$1,500, and it goes from that up to \$1,800.

Senator KITTREDGE. In gold?

Mr. MAGOON. Yes, sir.

Senator MORGAN. You are obliged to have them to conduct the business?

Mr. MAGOON. Oh, yes, sir.

Senator HOPKINS. Are those male or female stenographers?

Mr. MAGOON. Male stenographers.

Senator HOPKINS. Entirely?

Mr. MAGOON. So far as my department is concerned, entirely. I think that in the auditor's office the wife of one of the clerks is also a typewriter. I do not know whether she is a stenographer or not.

Senator HOPKINS. Do the women stenographers get the same as the men stenographers?

Mr. MAGOON. I think so.

Senator HOPKINS. You make no distinction?

Mr. MAGOON. We make no distinction, but we have not had any. I am mistaken about that. The daughter of the medical storekeeper for a time acted as his stenographer and typewriter, and got the same wages as any other stenographer would get.

Senator MORGAN. I want to ask you about the government of that Zone. You succeeded General Davis as governor?

Mr. MAGOON. Yes, sir.

Senator MORGAN. What day did you take office?

Mr. MAGOON. The 25th of May, 1905.

Senator MORGAN. Is that the day of your arrival at the Isthmus?

Mr. MAGOON. No, sir; following the day of my arrival.

Senator MORGAN. At the time you entered that office there were statutes enacted by the Isthmian Canal Commission that regulated the duties of the governor?

Mr. MAGOON. Yes, sir.

Senator MORGAN. Have those statutes been the guide of your exercise of that jurisdiction as governor?

Mr. MAGOON. Yes, sir; except the orders of the President and of the Secretary of War.

Senator MORGAN. That is what I want to get at. Has the President, since you have been governor, or the Secretary of War issued special orders to you which in any wise departed from or contradicted the statutes prescribed by the Commission?

Mr. MAGOON. Not that I know of. I cannot recall such.

Senator MORGAN. Do you remember the occasions when the President has intervened with orders directed personally to you?

Mr. MAGOON. No; I never have—

Senator MORGAN. Or the Secretary of War?

Mr. MAGOON. I never have had any direct orders which were in any way in contravention; in fact, I have never had any direct communication from the President, with but one exception; that was a question he desired some information upon respecting what arrangements were being made for the moral sanitation of the Isthmus.

Senator MORGAN. That was a mere inquiry?

Mr. MAGOON. Yes, sir; he had received a letter from his own clergyman, and transmitted it to me.

Senator MORGAN. Has the Secretary of War ever given you such an order?

Mr. MAGOON. No, sir.

Senator MORGAN. So that the conduct of your business has been entirely under the statutes of the Isthmian Canal Commission?

Mr. MAGOON. Yes, sir.

Senator MORGAN. And of such duties as would naturally fall to the office of the governor?

Mr. MAGOON. Yes, sir. Right in that connection I do not wish to make a statement that is liable to be misunderstood. For instance, we wanted an auditing system, and for the government of the Zone the auditing system was put in force by an order from Secretary Taft.

Senator MORGAN. That was outside of your duties as governor?

Mr. MAGOON. Oh, yes, sir; but I am speaking of the government of the Zone.

Senator MORGAN. I was trying to draw your attention more particularly to your duties and powers as governor.

Mr. MAGOON. Yes, sir.

Senator MORGAN. And you had a code to regulate the duties and powers of the governor when you went there?

Mr. MAGOON. Not exactly. There was a criminal code and a code of criminal procedure. Those were the only two codes that were enforced, excepting the Colombian codes.

Senator MORGAN. When I say a code I mean a system of laws enacted by the Isthmian Canal Commission.

Mr. MAGOON. Yes, sir.

Senator MORGAN. You had that?

Mr. MAGOON. Yes, sir.

Senator MORGAN. And they prescribed the duties of the governor?

Mr. MAGOON. Yes, sir.

Senator MORGAN. Was the pardoning power included in that authorization to you?

Mr. MAGOON. Yes. The statute of the Isthmian Canal Commission referred back to the powers conferred by the President's order. When General Davis went there the President issued an order, among other things, providing for the exercise of the pardoning power, as I now recollect.

Senator MORGAN. To be exercised by the governor?

Mr. MAGOON. Yes, sir.

Senator MORGAN. To what cases did it extend.

Mr. MAGOON. It would extend only to infractions of the local law.

Senator MORGAN. Would it extend to felonies?

Mr. MAGOON. Yes, sir.

Senator MORGAN. To murders?

Mr. MAGOON. I think it would.

Senator MORGAN. To capital cases?

Mr. MAGOON. I think it would.

Senator MORGAN. So that the effect of the President's order and of the Isthmian Canal Commission's statutes was to vest in the governor the pardoning power?

Mr. MAGOON. Yes, sir.

Senator MORGAN. Have you ever had occasion to exercise it?

Mr. MAGOON. Yes, sir.

Senator MORGAN. In what class of cases?

Mr. MAGOON. One was the case of a young man, a native of Panama, who had been convicted and sentenced to the penal institute for a period of five years for violating the age of consent law. That was a new law down there to those people. They had not heard of that law, and the principal purpose of the law was thought to be conserved by his conviction and incarceration. It certainly advertised that law very well, indeed. I think he had been in that institution about ten months when I received an application for his pardon. I referred it to the prosecuting attorney, and upon his recommendation I granted a pardon to him on the 4th day of July. Since that time one other case arose of a young man who had been convicted of embezzlement of a fund.

Senator MORGAN. A fund of the Government?

Mr. MAGOON. Of a municipality.

Senator MORGAN. Yes.

Mr. MAGOON. And the doctors in charge of the prison said that further confinement would endanger his life; that he was broken in health. He still had, I think, three months to serve.

Senator MORGAN. So that you have a penal institution there for the punishment of convicts?

Mr. MAGOON. Yes, sir.

Senator MORGAN. Against whom a judgment of felonious criminality has been given?

Mr. MAGOON. We have a Zone prison. They call it a "State prison" down there, but of course it is not.

Senator MORGAN. They call it what?

Mr. MAGOON. They call it a State's prison. It is not a State prison. It is a penitentiary. It is the Zone penitentiary.

Senator MORGAN. Do you require the convicts to work?

Mr. MAGOON. Yes, sir.

Senator MORGAN. And the penitentiary there is under a complete organization?

Mr. MAGOON. Yes, sir.

Senator MORGAN. About how many convicts have been received into that institution?

Mr. MAGOON. I can find it out for you; I can not say offhand, but the report of the chief of police for the Zone will show it.

Senator MORGAN. It is a considerable number, is it not?

Mr. MAGOON. It is astonishingly small, I think, considering the considering the conditions down there.

Senator MORGAN. But still it is a considerable number?

Mr. MAGOON. Yes. But they are a peaceable, law-abiding community. I had anticipated finding that there would come there what we encounter in our mining camps. But nothing of the sort is there.

Senator MORGAN. Is there any discrimination made in respect to the liability of persons who are not citizens of the United States and those who are, in those convictions or punishments?

Mr. MAGOON. No, sir.

Senator MORGAN. You have spoken of the age of consent. From what law did you derive the authority to punish a man for violating that?

Mr. MAGOON. The penal code enacted by the Isthmian Canal Commission.

Senator MORGAN. They put an age of consent provision in their penal code?

Mr. MAGOON. Yes, sir.

Senator MORGAN. You did not act upon any law of the United States?

Mr. MAGOON. No, sir. It was a law of the Canal Commission.

Senator MORGAN. It was quite a surprise down there that there could be anything of the sort, was it not?

Mr. MAGOON. Yes, sir. They seemed to think that was an American institution of which they had not heard up to that time.

Senator MORGAN. And you advertised it very thoroughly by convicting this young man?

Mr. MAGOON. He was convicted before I came there, but of course he was convicted and his conviction did advertise that law very well indeed.

Senator MORGAN. Has it produced any decided moral effect?

Mr. MAGOON. I think it has. I think it has produced a very beneficial result, not only within the Zone but outside of the Zone. It has attracted attention to the fact that such things were done, and it has led to a discussion that, I think, has resulted in very considerable benefit.

Senator MORGAN. If a man should choose to question his conviction for a felony in the district, would he have an appeal?

Mr. MAGOON. He had an appeal to the supreme court of the Canal Zone.

Senator MORGAN. And not beyond that?

Mr. MAGOON. Not that I know of. That is as far as the Isthmian Canal Commission could confer jurisdiction.

Senator MORGAN. And Congress has made no provision of that kind for appeal to the Supreme Court or to any Federal court?

Mr. MAGOON. Not yet.

Senator MORGAN. Have you ever considered the question whether a law could possibly be constitutional under the Constitution of the United States that did not provide for an appeal to some jurisdiction beyond the territorial jurisdiction?

Mr. MAGOON. No.

Senator MORGAN. You have not considered that?

Mr. MAGOON. No, sir; we have provided for an appeal. I might say that I was general counsel for the Commission and drafted these laws.

Senator MORGAN. You drafted that code?

Mr. MAGOON. Yes, sir; I drafted it; it is not an original work of mine. I took the Code of Porto Rico and adapted that code to the condition as I saw it on the Isthmus. Practically every section in it was modified, however.

Senator HOPKINS. An appeal in a criminal case is statutory. There is no constitutional requirement that a person shall have a right to go to any particular court, is there, after the trial court, Judge?

Mr. MAGOON. Not that I know of; no, sir. But I think that an appeal is a very good thing, and I was quite insistent with the old Commission that a provision should be made for one.

Senator HOPKINS. You allowed the appeal as a matter of policy?

Mr. MAGOON. Yes, sir; well, as a matter of right; not of constitutional right; but it is one of the rights that I think has become established by universal acceptance, so that it almost ranks as a natural right of man.

Senator HOPKINS. Under the common law there is no appeal?

Mr. MAGOON. No; in England there is no appeal under the common law.

Senator SIMMONS. The Commission there is a continuing legislative body, is it not?

Mr. MAGOON. No, sir.

Senator SIMMONS. Who has the power, then, to appeal or amend this code that you have adopted?

Mr. MAGOON. I do not know. One of the things which I hope this Congress will do is to restore the legislative power down there, that it may be applied to local affairs.

Senator SIMMONS. There is no legislative power?

Mr. MAGOON. There is no legislative power there now. Such authority as has to be exercised is derived from the office of the President, the authority of the Secretary of War, and the exercise of authorities designated the police powers of the state. I have issued orders down there which I have thought came well within the police power that the governor would have—certainly the police power is about equal in jurisdiction to what the mayor of a town would have—and when necessity required I issued a quarantine proclamation. For instance, I approved of the regulations for putting in plumbing, and things of that sort. That has been done by the order of the governor under what was considered the continuing powers inherent in his position. In no case have we gone beyond the police power.

Senator HOPKINS. The same authorities that made this code of laws under which you are acting has the power to repeal all of those laws, or modify them, or enlarge them, or give additional laws, have they not?

Mr. MAGOON. No, sir; not now.

Senator HOPKINS. Why not?

Mr. MAGOON. Because the United States Congress passed an act, the act of March 2, 1904—

Senator KITTREDGE. April 28, was it not?

Mr. MAGOON. Yes; April 28, 1904—which was the reenactment of what was called the Spooner amendment, if you remember?

Senator HOPKINS. Yes; I remember that.

Mr. MAGOON. The authority conferred by that statute expired with the expiration of the last Congress. So that, since the last Congress adjourned, we have been without any other authority.

Senator HOPKINS. Without any other laws?

Mr. MAGOON. No, sir; not without any laws, but without the power to amend.

Senator MORGAN. Or to enact new laws?

Mr. MAGOON. Or to enact new laws.

Senator SIMMONS. Under that act has the President any authority to promulgate a new law, or to issue an order which would supersede one of the provisions in this code?

Mr. MAGOON. No, sir; I hardly think he could modify them. I would not say that he could not, because of the vast powers which he possesses under the requirement of the Constitution that he shall protect

the property and interests of the United States and take care that the laws shall be enforced.

Senator SIMMONS. I am not speaking about that.

Mr. MAGOON. Those grant him very large powers, but there has been no occasion to exercise them.

Senator MORGAN. Is there any provision in the statutes—I call them statutes——

Mr. MAGOON. They are statutes.

Senator MORGAN. Is there any provision in the statutes of the Canal Zone, of the Commission, in regard to the writ of habeas corpus?

Mr. MAGOON. There is not; no, sir.

Senator MORGAN. So that you have no such writ?

Mr. MAGOON. I think that we could have such a writ down there.

Senator MORGAN. You would have to amend it, would you not?

Mr. MAGOON. Yes, sir; you would have to issue a court order. You do not take a writ of habeas corpus to bring a witness into court.

Senator KITTREDGE. Have you more than one district attorney?

Mr. MAGOON. No, sir; we have one district attorney and an assistant district attorney.

Senator KITTREDGE. Where is he located?

Mr. MAGOON. In Panama.

Senator MORGAN. So that no appeal has ever been made to the powers of the writ of habeas corpus, or any corresponding powers, by any-one convicted of an offense or accused of an offense?

Mr. MAGOON. No, sir.

Senator MORGAN. Among these convicts in the penitentiary there are there any citizens of the Republic of Panama?

Mr. MAGOON. I think so; quite a number of them.

Senator MORGAN. Did the Government of Panama make any objection to their conviction?

Mr. MAGOON. None whatever. There was one request—it did not come from the Government, but from friends of a young man who was recently sent there, who came to me saying that they had gone to the Government of Panama to ask them to request me to take this man who had thus been put in the Zone penitentiary and incarcerate him in the Panama penitentiary, and that the Panama authorities said: "You go and see the governor and see what he thinks about it." So they got out of it in that way.

Senator MORGAN. You did not find yourself in possession of any such power?

Mr. MAGOON. I did not; no, sir. They seem to be very well satisfied with our courts and the method by which justice is administered.

Senator SIMMONS. Have you any extradition arrangement with the Republic of Panama by which, if an offense is committed upon the Zone and the perpetrator flies across the line, you can get him?

Mr. MAGOON. Yes, sir. This was by the exercise of the right which the government has to expel from its jurisdiction any person who is inimical to its best interests or to the interests of law and order.

Senator MORGAN. The government of the Canal Zone has that power?

Mr. MAGOON. Yes, sir; that is considered one of the police powers.

Senator MORGAN. Is that by enactment of the Canal Commission?

Mr. MAGOON. No, sir; that is not provided for, except in the gen-



eral exercise of the police power; just the same as if a man is arrested in this town the court says, "We will give you ten days to leave town," or the policeman goes around and tells him.

Senator SIMMONS. I referred more especially to an offender against the code of the Zone.

Mr. MAGOON. I understand exactly.

Senator SIMMONS. I referred to an offender who escapes and enters into the jurisdiction of the Republic of Panama. Have you any arrangement by which that man can be extradited and brought back?

Mr. MAGOON. Yes, sir; and it is carried into effect by this police power. The arrangement is, if a man commits a crime in the Zone and gets over into the town of Panama we notify the alcalde, who has him arrested and turned over to the Zone policemen. It is summary and effective, and we return the compliment. When one of their men commits an offense and gets over into the Zone, we arrest him and turn him over to them.

Senator SIMMONS. Is that a matter of comity?

Mr. MAGOON. Yes, sir.

Senator MORGAN. That is a process of extradition?

Mr. MAGOON. That is the method of it. There exists, of course, between the Republic of Panama and the United States an extradition treaty.

Senator MORGAN. Yes.

Mr. MAGOON. Which relates to felonies; it is not for misdemeanors. This arrangement relates to misdemeanors and the smaller offenses that are not extraditable.

Senator MORGAN. So that, after the Government has got through with the extradition that they thought was necessary, the authorities of the Zone took it up and applied it to smaller misdemeanors?

Mr. MAGOON. We applied it to smaller misdemeanors; yes, sir.

Senator MORGAN. Did you enact any statute on the subject?

Mr. MAGOON. No, sir.

Senator MORGAN. You are proceeding under the general police power, as you have described it here, I think, of banishing a man who is a suspect or who is an inconvenient person to have in the community?

Mr. MAGOON. We think that is well within the police power, under a decision of the Supreme Court of the United States, where they hold that it is not necessary to have an extradition treaty for a government to rid itself of obnoxious characters or to prevent the remaining within its borders of criminals who have escaped from another jurisdiction.

Senator MORGAN. You can banish a citizen of the United States from the Zone under that power?

Mr. MAGOON. The matter of deportation was provided for in the President's original order, where he conferred upon the governor the authority to deport certain classes.

Senator MORGAN. So that the power of banishment, which is equivalent to the power of deportation, exists in the Zone?

Mr. MAGOON. The power of deportation does; yes, sir.

Senator MORGAN. And there is no limit upon that; you may deport them to the United States or anywhere you please to send them?

Mr. MAGOON. Yes; we could buy them a ticket and put them on board.

Senator MORGAN. By force?

Mr. MAGOON. Yes, sir.

Senator MORGAN. And send them off?

Mr. MAGOON. Yes, sir.

Senator MORGAN. You have had occasion to exercise that power in regard to some of those negroes, have you not?

Mr. MAGOON. Yes, sir.

Senator MORGAN. Frequent occasions?

Mr. MAGOON. Yes, sir.

Senator MORGAN. An unworthy character would get there, and you would order him out of the Zone?

Mr. MAGOON. They are largely people who would become a public charge.

Senator MORGAN. Yes.

Mr. MAGOON. That is, they were people who recently had come from Jamaica or somewhere, who were crippled or something like that.

Senator MORGAN. Is there any agreement between the Government of Panama and the government of the Canal Zone by which these people who are banished from the Canal Zone have no right of refuge in the Republic of Panama?

Mr. MAGOON. No, sir.

Senator MORGAN. So that when you drive them out of the Zone they can go into Panama and remain there unless the authorities there choose to put them out?

Mr. MAGOON. Yes, sir.

Senator MORGAN. Is it not a fact, Governor, that many bad characters congregate in Panama and Colon, the cities, in consequence of your power to drive them out of the Zone?

Mr. MAGOON. I think so—that is, I think that there are professional gamblers and public prostitutes, and characters of that sort in both of those towns.

Senator MORGAN. Do you not think that the existence of that condition there is difficult to deal with?

Mr. MAGOON. Why, I can not deal with it. It is outside of my jurisdiction.

Senator MORGAN. I mean in the control of the people who are within the Zone. Do you not think it poisons their morals? Do they not interfere with your labor?

Mr. MAGOON. And reduce the efficiency of it?

Senator MORGAN. Yes.

Mr. MAGOON. Yes, sir.

Senator MORGAN. They do?

Mr. MAGOON. Probably.

Senator MORGAN. Is that aggregation or congregation of people in Colon and Panama increasing or not?

Mr. MAGOON. I should say that as to the gamblers, there is a perceptible decrease, owing to the fact that the gambling concession granted by the Colombian Government has expired, or will shortly expire, I do not know which. There were a number of gamblers who had come there when we first came; that is, they got there ahead of the coming of the American authorities, thinking that they would continue to gamble along the line of the railroad and the canal, and that it would be a rich field. The fact that we did not permit that, that we had precluded the possibility of it—that is, we had made it so that they understand that they will not be tolerated—has sent them away.

Senator MORGAN. Does that action of the Canal Commission take effect when the concession of Colombia expires, or before?

Mr. MAGOON. It took effect the minute it was executed, and it was tested in the courts. They denied our authority to do that. They said that it was a piece of property, that the treaty protected the property, and that we could not stop them from selling lottery tickets or from gambling.

Senator MORGAN. That question has been settled in the courts of Panama?

Mr. MAGOON. In the courts of the Zone.

Senator MORGAN. But it has not been brought to the Federal court here?

Mr. MAGOON. Yes, sir. It has been brought to the Supreme Court of the United States and they declined to entertain the appeal.

Senator MORGAN. Was that on the ground that they had no jurisdiction?

Mr. MAGOON. It was on the ground that the Isthmian Canal Commission was without authority to enact the statute under which it was prohibited and under which they were convicted.

Senator MORGAN. And that there was no law upon which the appeal could be taken?

Mr. MAGOON. On what ground did the Supreme Court decline jurisdiction, you mean?

Senator MORGAN. Yes.

Mr. MAGOON. That they did not have jurisdiction over the matters arising in the courts of the Zone; that is, that Congress had not yet extended their jurisdiction to the Zone.

Senator MORGAN. That is the point I was trying to arrive at; the necessity and duty of this committee to report a bill on that subject.

Mr. MAGOON. I would be very glad to see that done. I should be very glad if the Supreme Court of the United States had appellate jurisdiction over matters and affairs in the Zone, and I apprehend that in time to come very large propositions will arise there, controversies possibly between contractors, between the United States and others regarding the real estate there, and so on.

Senator MORGAN. And questions of the interpretation of the treaties between Panama and the United States?

Mr. MAGOON. Very likely; though I do not exactly see how that question could get into the Supreme Court.

Senator MORGAN. Into the Supreme Court of the United States?

Mr. MAGOON. Yes, sir.

Senator MORGAN. You know they have express jurisdiction of the interpretation of treaties under the Constitution. Surely a case can be made that would bring the case up, and cases will be made, I think, that will bring the question up.

Mr. MAGOON. Possibly; but I say I do not see how they can get them into the Supreme Court.

Senator MORGAN. Because the Constitution gives that jurisdiction to the Supreme Court—the interpretation of treaties.

Mr. MAGOON. Then the right—but there is no need of my going into that question further, Senator. [Laughter.]

Senator SIMMONS. I want to ask you a question about quarantine. You exercise the right of quarantine, so far as the Zone is concerned?

Mr. MAGOON. Yes; and also so far as Panama and Colon are concerned.

Senator SIMMONS. How do you do that?

Mr. MAGOON. Under the treaty. They gave us permission to adopt rules and regulations for sanitation and quarantine; the sanitation of the cities of Colon and Panama and the quarantining of the waters of the ports. We were to submit these to the Panamanian authorities, and they were to adopt them and enforce them. If they fail to enforce them, or are unable to enforce them, we enforce them.

Senator SIMMONS. Suppose there is a conflict of opinion between the Commission and the authorities of the Republic as to whether the conditions justify a quarantine?

Mr. MAGOON. The possibility of that is reduced to a minimum by the fact that the Panama Government appointed our men as their quarantine officers; that is, the health officer whom we appointed for Panama was appointed by the Government of Panama as their health officer.

Senator SIMMONS. Yes.

Senator MORGAN. Is that a temporary arrangement, or is it under the law of Panama?

Mr. MAGOON. It is a temporary arrangement. It is under the decree issued by the President of Panama.

Senator MORGAN. By the President?

Mr. MAGOON. Yes, sir.

Senator MORGAN. So that perhaps some more permanent arrangement would be necessary in order to establish quarantine powers there?

Mr. MAGOON. Well, the quarantine powers, I think, under the Taft agreement are primarily with us. We quarantine all the waters of the bay. We exercise the authority of quarantine powers over the waters.

Senator MORGAN. I am sure that you exercise it, but the question with me is whether you have it.

Mr. MAGOON. We do exercise it.

Senator MORGAN. If you have not got it, I want to give it to you.

Mr. MAGOON. We ought to have it; there is no doubt about that. We have no difficulty at present, however.

Senator MORGAN. That is the very point that I wanted to get to. Whether or not the Government of the United States should not insist upon the exercise of full plenary quarantine powers in the cities of Panama and Colon, and throughout the Zone?

Mr. MAGOON. Well, of course, we have it throughout the Zone, and the Panama Government not only yields it, but is glad to have us exercise all of that power.

Senator MORGAN. Still, that does not dispense with the necessity of crystallization into law.

What agencies has the governor there for enforcing the laws—what administrative or executive officers?

Mr. MAGOON. In addition to the courts he has a police force.

Senator MORGAN. Are there any sheriffs?

Mr. MAGOON. No; the police take the place of the constabulary. I think it would really be a better name for the police to call them the constabulary; but General Davis designated them as police.

Senator MORGAN. Is that constabulary appointed by the Commission?

Mr. MAGOON. No; the constabulary is appointed by the governor.

They are, however, reported to the Commission, and his appointments are approved.

Senator MORGAN. Are the numbers limited?

Mr. MAGOON. Yes, sir. The Commission fixes the number that I am to appoint and then I fill them out.

Senator MORGAN. If a man was required to be hanged, you would have to designate the hangman?

Mr. MAGOON. He would be hanged by the marshal of the court.

Senator MORGAN. You have a marshal of the court?

Mr. MAGOON. Yes, sir; the chief of police is marshal of one, and there are two lieutenants of police. We have three districts, and they are the marshals.

Senator KITTREDGE. Do they receive additional compensation for that service?

Mr. MAGOON. None whatever.

Senator KITTREDGE. Do the clerks of the courts receive fees for their service?

Mr. MAGOON. Yes, sir; there is a fee bill prepared.

Senator KITTREDGE. Do they receive compensation in addition to the fees?

Mr. MAGOON. They do not get the fees. They are required to account for the fees as public moneys.

Senator MORGAN. So that the marshal of the court is really filling the office of sheriff, as I understand it?

Mr. MAGOON. Yes, sir.

Senator MORGAN. And the policemen are virtually and in fact his deputies to execute the orders of the court?

Mr. MAGOON. Yes, sir.

Senator MORGAN. That is the regulation?

Mr. MAGOON. Yes, sir.

Senator MORGAN. Do you ever employ the police of the Republic of Panama in executing orders?

Mr. MAGOON. No, sir.

Senator MORGAN. Or do they ever employ your police in executing orders?

Mr. MAGOON. No, sir.

Senator MORGAN. They are kept entirely separate?

Mr. MAGOON. Yes, sir. For a time, when I got there, the police headquarters of the Zone police were in the town of Panama, and his officers, sergeants, and so on reported to him in the town of Panama. General Davis had been living in a certain house there, and I lived in it for a short time; but among the first things that I did, I moved over and took another house and divided that up into two parts, and gave one to the chief of police and the other was used for court rooms.

Senator MORGAN. Do conflicts occur between the police of the Republic of Panama and the police of the Zone?

Mr. MAGOON. Yes; nothing serious, but once in a while there is a clash.

Senator TALIAFERRO. Do you reside within the limits of the Zone now?

Mr. MAGOON. I do; yes, sir.

Senator SIMMONS. Governor, I am not very familiar with the act of Congress—I have not read it recently—and I want to ask you one question about the tariff on the Zone: Exclusive of things that are

needed in the construction of the canal, what tariff laws prevail in the Zone?

Mr. MAGOON. We do not have any. We do not permit the importation. The ports of the Zone are not open ports in that sense.

Senator SIMMONS. Suppose foreign imports arrive at La Boca, for some merchant located on the Zone; are those imports taxed according to the tariff of the Republic?

Mr. MAGOON. Yes.

Senator SIMMONS. Then, practically, the tariff of the Republic prevails within the Zone?

Mr. MAGOON. Well, yes; it would come through the Panamanian port into the Zone. For instance, Atlantic City is not a port of the United States, and you could not bring anything through Atlantic City. If a merchant in Atlantic City wanted to import something he would import it through Philadelphia.

Senator SIMMONS. That is a part of the same country; but the port I am speaking of here is a port of a different country. We have sovereignty over the Zone, and the destination of the imports that I speak of is the Zone.

Mr. MAGOON. Yes.

Senator SIMMONS. But in order to get there you say it has to land at one of the ports of the Republic?

Mr. MAGOON. It is treated as landing at one of the ports of the Republic.

Senator SIMMONS. And must pay the tariff?

Mr. MAGOON. Yes, sir; 10 per cent ad valorem.

Senator MORGAN. Have you collectors of the ports there?

Mr. MAGOON. Yes, sir.

Senator MORGAN. One at each?

Mr. MAGOON. No; there is one collector for all the ports of the Zone—that is, to perform the services which shipping requires; the clearance of vessels and looking after sailors.

Senator MORGAN. He is the collector of both ports?

Mr. MAGOON. Yes, sir.

Senator MORGAN. And has his officers that he can give his instructions in regard to the duties of his position?

Mr. MAGOON. Yes, sir.

Senator MORGAN. Since the delimitation was made by agreement between Governor Davis and the Panama Republic of the ports at Colon and also the port at La Boca, there are two ports at each place. One is the Panama port and the other is a port of the United States.

Mr. MAGOON. That is true at La Boca.

Senator MORGAN. Is it not also true at Colon?

Mr. MAGOON. Well, yes; at Colon there are different piers. At La Boca until recently there was but one pier, while at Colon the vessels really come into Panama water and territory at Colon and into American water and territory at La Boca.

Senator MORGAN. As a matter of law and right and agreement between the two Governments, each Government had a port at Colon and also at La Boca?

Mr. MAGOON. Yes; practically so.

Senator MORGAN. Until that arrangement was made, if I understand the treaty correctly, the vessels coming to the shore or to the wharves

at Colon would pass through the port of Colon before they would enter the port of the United States, which was supposed to be an interior port?

Mr. MAGOON. Yes, sir.

Senator MORGAN. That has been changed by this agreement?

Mr. MAGOON. Yes, sir.

Senator MORGAN. Which agreement has not yet been ratified by the Congress of Panama?

Mr. MAGOON. No, sir.

Senator MORGAN. Nor by this Congress?

Mr. MAGOON. Not to my knowledge. There is no affirmative action. The matter has been reported to Congress.

Senator MORGAN. It is a very important matter, therefore, that permanent, final action should be taken establishing that situation?

Mr. MAGOON. I do not think so, Senator.

Senator MORGAN. Why?

Mr. MAGOON. There is no objection to so establishing that situation. The question comes up, I think, as to the authority to open a port rather than to close anything or to make any arrangement for it. If there are no open ports in the Zone, that ends it, does it not?

Senator MORGAN. Yes, but there are open ports in the Zone.

Mr. MAGOON. No. There are no ports that you can go to to import stuff—I do not make it very clear to you, I am afraid; but that is the distinction which lies in my mind, that La Boca and Cristobal are not ports of entry.

Senator MORGAN. They are not?

Mr. MAGOON. No, sir.

Senator MORGAN. The ports of entry, then, are Panama and Colon?

Mr. MAGOON. Yes, sir.

Senator MORGAN. For goods imported into the Zone?

Mr. MAGOON. Yes, sir.

Senator MORGAN. As well as to the Government of Panama?

Mr. MAGOON. Excepting such stuff as is imported for the use of the Government of the United States in the construction of the canal; all of that stuff and all of the household goods, wearing apparel, and things of that sort of all of the employees of the Commission.

Senator TALIAFERRO. If an American citizen opened a store within the limits of the Zone and wanted to get goods from the United States in connection with his business he would have to pay 10 per cent?

Mr. MAGOON. Yes.

Senator KITTREDGE. To whom?

Mr. MAGOON. To the Panama Government.

Senator MORGAN. He could not import them through our port; he would have to go through the port of Panama?

Mr. MAGOON. Yes, sir.

Senator MORGAN. And pay the port charges and whatever else they imposed upon his importation?

Senator TALIAFERRO. Import duties, are they not?

Mr. MAGOON. Yes, sir; 10 per cent ad valorem.

Senator MORGAN. There are harbor dues also?

Mr. MAGOON. Possibly.

Senator MORGAN. And for lights?

Mr. MAGOON. The shipping pays that. The importer would pay neither of those.

Senator MORGAN. The importer does not pay it, but it would have to be paid. Are there any such dues chargeable upon vessels bringing cargoes destined for consumption exclusively in the Canal Zone—port dues, light dues, harbor dues?

Mr. MAGOON. No.

Senator MORGAN. None at all?

Mr. MAGOON. I do not think there are any at all. There is a light over there on that point [indicating on chart].

Senator KITTREDGE. Which point do you refer to?

Mr. MAGOON. At Colon; at Mindi they charge shipping a light tax for certain vessels coming in there, but my understanding is that it is not charged to the Panama Railroad boats, which are our boats.

Senator MORGAN. If there are any exceptions to the law there, they are merely temporary agreements for the convenience of the parties concerned?

Mr. MAGOON. I think that exception comes under the charter of the Panama Railroad.

Senator MORGAN. Under their charter?

Mr. MAGOON. Yes. It is exempt from these charges by its charter.

Senator SIMMONS. We can not, then, open the two ports that we have there, one at Cristobal and the other at La Boca, and make them ports of entry without producing a tariff conflict with the Republic, can we?

Mr. MAGOON. Certainly not.

Senator SIMMONS. The only way to avoid that is to continue the present situation?

Mr. MAGOON. Yes, sir.

Senator MORGAN. I wish to call the attention of the committee to the importance of the matter that we are inquiring about. There is a bill pending and now under consideration in the Senate—the ship-subsidy bill—which I notice makes no provision at all for subsidies to a line from Colon or from La Boca to any other port of the world, and makes no provision for defining what are the rights of the United States as to the exercise of jurisdiction over imports and exports in the canal. This matter seems now to rest entirely upon the agreement entered into by Governor Davis and the Government of Panama, which has not yet been confirmed.

I wanted to ask you, Governor Magoon, whether you think it is necessary and proper that the Government of the United States should make an express declaration that Cristobal and La Boca are ports of entry of the United States?

Mr. MAGOON. No, sir; I do not.

Senator MORGAN. You think there is no importance to be attached to that?

Mr. MAGOON. I think it ought not to be done.

Senator MORGAN. It ought not to be done? Why?

Mr. MAGOON. Because there are no natural barriers between the territory of Panama and the Zone. You simply cross a street, you know. It would destroy the revenues of the Panama Republic. Either that, or if we put in our present tariff rate in the Zone, such as we have here, it would produce probably about the effect that exists now; that is, their tariff is so small that everything would be taken into Panama, and immediately across into the Zone, that we would collect a



revenue from. There would be no benefit which we would derive, and it would work a great injury to that young Republic.

Senator MORGAN. To establish those places as ports of entry of the United States?

Mr. MAGOON. Yes, sir.

Senator MORGAN. As it stands now, they are foreign ports in reference to coastwise trade?

Mr. MAGOON. Colon and Panama?

Senator MORGAN. Yes.

Mr. MAGOON. Yes, sir.

Senator MORGAN. They are foreign ports with reference to coastwise trade?

Mr. MAGOON. Yes, sir.

Senator MORGAN. But the authorities of the Government do not seem to respect that; they seem to regard the ports as being ports of the United States, so that the coastwise-trade law applies to them; and while vessels that have an American registry can trade freely there, other vessels can not, between ports of the United States and Panama on the one side—I mean Cristobal on the one side and La Boca on the other?

Mr. MAGOON. Well, those were not the ports that you mentioned, Senator. You said that the coastwise laws did not apply to Colon and Panama.

Senator MORGAN. Oh, well, then, I had the general term in my mind instead of the particular name of the ports, as they have been delimited. I will change the question. I will ask the stenographer to read my question.

(The stenographer read the question referred to, as follows:)

“But the authorities of the Government do not seem to respect that; they seem to regard the ports as being ports of the United States, so that the coastwise trade law applies to them, and while vessels that have an American registry can trade freely there, other vessels can not, between ports of the United States and Panama on the one side—I mean Cristobal on the one side and La Boca on the other?”

Senator MORGAN. You see, I corrected it.

This is the situation: The Government of the United States, as I understand it, treats the port of Cristobal and the port of La Boca as being ports of entry—ports of the United States, in other words—and thereby subjects them to the rights of vessels, holding American register, to engage in coastwise trade, and excludes a foreign vessel from bringing any goods from an American port into either of those ports, cuts off foreign vessels entirely. Do you think that that arrangement ought to continue?

Mr. MAGOON. I think you are mistaken about that, Senator, about their closing those ports to foreign flags.

Senator MORGAN. You think I am mistaken as to the practice?

Mr. MAGOON. Yes, sir.

Senator MORGAN. Do foreign vessels bring importations into Cristobal or La Boca from American ports?

Mr. MAGOON. Yes, sir; we have had several lumber vessels in there bringing stuff from Puget Sound and coming down that way.

Senator MORGAN. So that the canal authorities do not regard these ports as being ports of the United States?

Mr. MAGOON. I do not think the United States authorities regard them as such, because the titular sovereignty remains in the Panama Republic.

Senator MORGAN. Well?

Mr. MAGOON. Although the exercise of it is perpetually conferred upon the United States.

Senator MORGAN. That brings up a very delicate question in my mind about the titular sovereignty as contradistinguished from the actual ownership and the actual governmental control. What is that titular sovereignty there that entitles the Government of Panama to claim and to hold that the port of La Boca and the port of Cristobal are Panama ports and are not United States ports?

Mr. MAGOON. I can not refine it or define it. That is the situation which has been accepted as the correct one.

Senator MORGAN. And the Isthmian authorities and the Panama Government both act upon the idea that the ports of Cristobal and La Boca are Panama ports?

Mr. MAGOON. No, sir.

Senator MORGAN. What, then?

Mr. MAGOON. We act on the idea that they are not ports of entry, but that, so far as they are open to the landing of the goods belonging to the United States, they are American ports.

Senator MORGAN. Does that come from a concession made by the Panama Government of that much favor to us in consequence of titular sovereignty?

Mr. MAGOON. No; that comes from the treaty.

Senator MORGAN. Well, I have had many objections to the treaty, but I did not know that that was in it.

Mr. MAGOON. May I inquire what you think was conferred by the treaty respecting sovereignty? What do you think was conferred?

Senator MORGAN. I can answer that better in the language of Governor Taft than I can in my own, perhaps. I asked him the question before this committee one day as to what was the difference between the relations of the United States to that Zone and to Porto Rico, and he said that there was not any; that the Zone has been annexed to the United States.

Mr. MAGOON. That is your position? You think that?

Senator MORGAN. That is his position.

Mr. MAGOON. I was asking for yours.

Senator MORGAN. I concur with him, fully. I think that property belongs to us just as much as the Cape of Florida. It is charged with a trust in favor of Panama and the world that we will build a canal there; but suppose we can not do it. We would be relieved from the trust, and we would not give up the land, by any means, and the railroad and all our possessions there, simply because we could not execute a part of it; for instance, through a convulsion of nature, an earthquake that might shake those hills down into the chasm you are digging through Culebra and Emperador.

We would not lose our title to the Canal Zone, the railroad, and all of the other rights that we have got there, material and political, because we could not execute the trust for building the canal, or because we were an unreasonable time doing it. The property belongs to us, and we owe to Panama an obligation or duty which we will perform if we

can, but if we can not do it they do not get the land back. There is no forfeiture connected with any feature of that treaty.

Senator KITTREDGE. May I ask a few questions, Senator Morgan?

Senator MORGAN. Yes.

Senator KITTREDGE. They relate to another subject.

Senator MORGAN. Yes.

Senator KITTREDGE. Have you read the article of Poultney Bigelow, recently issued?

Mr. MAGOON. Yes, sir.

Senator KITTREDGE. In which he claims that affairs on the Isthmus have been mismanaged?

Mr. MAGOON. Yes, sir.

Senator KITTREDGE. Have you had called to your attention a newspaper article published within a day or two in which someone claims that Mr. Bigelow's statement is correct?

Mr. MAGOON. Yes, sir.

Senator KITTREDGE. Will you please tell us the facts regarding the conditions mentioned by Mr. Bigelow and in this newspaper article?

Mr. MAGOON. Well, nearly all branches of the Commission have been heard from on that subject, and I should prefer, if you will permit me, to submit some documentary evidence with respect to that. Secretary Taft's letter and Mr. Stevens' letter, the statements in which I indorse and heartily concur in, are both before this committee.

Senator TALIAFERRO. Are they in the record?

The CHAIRMAN. Yes.

Mr. MAGOON. But the Secretary of War wished me to get statements from foreign consuls and ministers of the gospel and affidavits from the Martiniquans respecting conditions as they were there and as they found them, as they actually experienced them, and from the Martinique women respecting their relations to the community and to the men with whom they may be living. I wrote a letter to each one of the consuls located in the city of Panama, a copy of which is attached to their statements. I have received letters from ten consuls, representing fourteen governments whose citizens are employed in connection with the canal enterprise. I also addressed a letter of similar character to the secretary of foreign affairs for the Republic of Panama.

Would you like me to read my letter of that character, or to state that I did not tell them the use this was to be put to? I advised them that the work was progressing to such a point that we could now take up and consider individual complaints, and that we should be pleased if they would advise us of the complaints which they had been receiving, the kind and character of the complaints, and also to offer any suggestions which their knowledge of the situation enabled them to make which would better the treatment of our employees and the conditions under which they are required to labor.

Senator KITTREDGE. Is the letter you mention a part of the documentary evidence you desire to have inserted in the record?

Mr. MAGOON. Yes, sir.

Senator KITTREDGE. And it is in substance as you have just stated?

Mr. MAGOON. Yes, sir.

Senator KITTREDGE. Then, perhaps, it will not be necessary for you to read it?

Mr. MAGOON. I am trying to save the time of the committee by stating generally what it is.

Senator KITTREDGE. Yes.

Mr. MAGOON. As I say, I have 11 letters from consuls there on the Isthmus, and while I should be very glad if the committee would either read or hear read all of them, I will ask you to permit me to read the letter from the British consul there, largely because the British consul has lived there on the Isthmus practically all of his life. His father was the British consul there before him.

As you know, the larger proportion of our common laborers come from Jamaica or Barbados and others of the West Indies, which are under British control, and those people are very well aware of their rights as British subjects, and hesitate not at all to appeal to the British consul to correct any grievances which they think they suffer from. When I first went there it was no unusual sight to see the street in front of the British consulate occupied by a crowd of people who were there for the purpose of having him do something which they thought he ought to do for them—largely to get their pay, which was overdue. That was the occasion of an assemblage there usually.

On January 17, in response to my letter, consul Mallett wrote me as follows:

BRITISH CONSULATE,  
*Panama, January 17, 1906.*

SIR: I have the honor to acknowledge the receipt of your letter of the 16th instant, in reference to the housing, feeding, and paying of the laborers in the employ of the Isthmian Canal Commission, and requesting me to state in writing whether or not at the present time I am in receipt of complaints from subjects of His Majesty on the Isthmus as to the treatment accorded to them by the Commission and American authorities, and, if complaints are being received, their nature and character.

It affords me much pleasure to comply with your wish, and I take this opportunity to observe that your laudable desire to obtain information regarding these matters, with a view to the betterment of the service, is only in keeping with the excellent work already accomplished under your direction and which has resulted in the marked all-round improvement in the treatment accorded to the large number of British subjects who are in the service of the Commission or who reside within the limits of the Canal Zone.

As regards the British West Indian, perhaps nobody on the Isthmus can speak with more knowledge of the treatment they have received than I can do, accustomed as they are to appeal to the consul with every imaginable kind of complaint, and after an official experience in such matters covering a quarter of a century, including all the French canal period, I do not hesitate to say to you that the conditions of the laboring man in the Canal Zone, as regards his treatment, are better to-day than they have ever been within my recollection. And this can not be otherwise, for the costly and important sanitary measures which have been effected, improved housing, the supply of good water, wholesome food from the commissaries at reasonable cost, are improvements which are bound to bring about a feeling of contentment, and help to overcome the adverse climatic conditions and avoid the ravages

of tropical diseases, which in the past have made it impossible to maintain the efficiency of large bodies of workmen on the Isthmus of Panama.

As regards complaints made to the consul against the Commission, I have to say, that up to November last there was general discontent exhibited in consequence of the delay in the payment of wages, due, as I understand, to the somewhat complicated system then in vogue, and I was frequently appealed to by large bodies of laborers who alleged that they had not been paid their wages, in some instances for six weeks, and were bordering on a state of destitution. I invariably brought these cases to your notice, or to the notice of Paymaster Shafer, when the reasonable demands of the workmen always received sympathetic attention, and a way was found to appease them, either by the immediate payment of their wages, or providing them with food while arrangements were being completed.

Individual complaints of harsh treatment by members of the Zone police, the foremen of gangs or bosses, were of daily occurrence at the commencement of the works undertaken by the Commission in the Canal Zone and the Republic of Panama, and were to be expected during the process of organization of so large a body of workmen, but each month they have grown less, and in last December only four cases were brought to my attention, two of them of a personal character so trivial that they required no consideration, and two of a more serious nature, which were courteously investigated by the judicial authorities of the Zone and proved to be without foundation.

I have the honor to be, sir, your obedient servant,

C. MALLET,  
*His Majesty's Consul.*

Senator MORGAN. Was that letter written before or after the alleged refusal of the authorities there at Panama to permit negroes who had come from Jamaica to return on the ship?

Mr. MAGOON. I never heard of that instance.

Senator MORGAN. You did not?

Mr. MAGOON. That the authorities at Panama refused to permit—

Senator MORGAN. That the authorities of the Zone and Panama refused to permit negroes to return to Jamaica who had come there and were dissatisfied?

Mr. MAGOON. I never had heard of that. Possibly you refer to the Martiniquans.

Senator MORGAN. Well, say the Martiniquans, then.

Mr. MAGOON. That was along last summer. Yes; this letter was written on the 17th of January last.

Senator MORGAN. That subject would come under the jurisdiction of the French consul there?

Mr. MAGOON. Yes, sir.

Senator MORGAN. I was mistaken as to the place from which the negroes came. I thought they came from Jamaica.

Mr. MAGOON. There is here a long letter from the French consul.

Senator MORGAN. On that subject?

Mr. MAGOON. Yes, sir; that is, on the subject of the treatment of the hands in the Zone. There is in your record here, in this volume which the President transmitted to Congress, an official statement of the French consul at Colon respecting that particular incident.

Senator MORGAN. Respecting that transaction?

Mr. MAGOON. This is his review; he went along the line of the canal and the railroad, and made what you might call a house-to-house investigation.

Senator MORGAN. Yes.

Mr. MAGOON. And reported it officially to his government; and this is a copy of that document.

Senator MORGAN. And in this he treats of that question about the landing of the Martiniquans?

Mr. MAGOON. He does, yes, sir; but more fully in this volume here [indicating].

Senator KITTREDGE. You refer to Document No. 127?

Mr. MAGOON. Yes, sir.

Senator SIMMONS. You purpose to have all those letters published in the record, Senator?

Senator KITTREDGE. Certainly. There is no objection to that?

The CHAIRMAN. No; they will go in the record.

(The letters referred to, laid before the committee by Governor Magoon, are printed at the end of to-day's proceedings.)

Senator MORGAN. I have not looked into that subject particularly, because I did not think it amounted to much.

Mr. MAGOON. These letters are from the foreign representatives of every nation that has any considerable number of citizens working for the canal, and the report of each is substantially like that of consul Mallett.

Senator KITTREDGE. What do you say of your own knowledge regarding the facts?

Mr. MAGOON. I say that the condition has constantly improved, and will continue to improve until every reasonable precaution, every reasonable means which will reduce the hazard of human life from attacks incident to a tropical climate shall have been provided.

Mr. MAGOON. I have here the affidavits of all of the clergymen on the Isthmus excepting two, one who was in South America and the other at Costa Rica at the time these were prepared, concerning the women from Martinique; that is, their conduct there since they have arrived, and what these clergymen have observed.

Senator HOPKINS. You offer that as original substantive evidence to show the condition as it exists there?

Mr. MAGOON. Yes, sir; these affect the moral sanitation of the Isthmus, Senator.

Senator HOPKINS. Yes.

Senator MORGAN. I think they should go in.

Senator HOPKINS. Yes; that is a subject we have a right to investigate and to know something about.

Mr. MAGOON. They make an excellent showing respecting their character, the conduct, and the lives of the women from Martinique, whom it was alleged we were bringing in there for immoral purposes. I have also here, which I will tender, the affidavits of 167 of the women.

Senator SIMMONS. That is a long document that you have there. I want to ask you, just in a general way, what the document says as to whether the lives of these women upon the Isthmus have been those of good women?

Mr. MAGOON. Yes, sir. This is not a single document, but the affidavits of several clergymen.

Senator SIMMONS. And that they are not of the character that they have been represented by certain persons?

Mr. MAGOON. That they are not; no, sir. They are marked in any community, and it is easy to distinguish them. They speak a jargon, they dress differently, and both the police and the ministers have kept them under surveillance. These 167 affidavits are from the women themselves.

Senator MORGAN. From the Martinique women?

Mr. MAGOON. Yes, sir.

Senator SIMMONS. They assert their innocence?

Mr. MAGOON. Yes, sir; they make a very good showing. The first affidavit here may be of interest to you. The purpose of these affidavits is to show what representations were made to those women in Martinique by our labor agent.

The CHAIRMAN. If that one is not too long you may read it.

Mr. MAGOON. This is the first affidavit—of the woman who was interviewed by the correspondent of the New York Herald, whose story was the basis of the article. [Reading:]

“Rose Mont Rose, first being duly sworn, on oath says: I am from Martinique. I have been here about two and a half months. I was informed by Mr. Lavenel in Martinique that I could get plenty of work here, such as washing, ironing, and as house servant. I came because I wanted work. At first I was sweeping camp quarters, and now I am washing, as I can make more money. I was told when I came here by the watchman at Bas Obispo that I must either be married, have work, or leave the camp, as they wanted no single women here unless they were working.

“I remember telling an American who came here about a month ago what I have stated here under oath, and I did not tell him anything more. I was not informed either in Martinique or here in the Canal Zone by any of the canal officials that I was to be here as a prostitute, neither did I tell anyone that I was here for that purpose. On the other hand, I told everyone that I came to work, and am working. I understand this because I speak English. I learned my English in Dominica.

“ROSE (her x mark) MONT ROSE.”

Senator SIMMONS. You said this morning that the Jamaican and Barbados negroes were generally educated; is that true of the Martiniquans?

Mr. MAGOON. No, sir; not so much so of the Martiniquans?

These affidavits all go on to state the representations which were made to these women, what they were doing, whether they are married, and when and where they were married.

Senator KITTREDGE. I think those should go in.

The CHAIRMAN. Yes; they will be put in the record.

(The affidavits referred to, relating to the women from Martinique, will be printed at the end of the record of to-morrow's proceedings.)

The CHAIRMAN. Will you leave the photographs which you have here for the use of the committee?

Mr. MAGOON. Yes, sir. I will leave them here. These are views of the structures. The idea was to get interior and exterior views, showing the way in which we made provision for the work people down there. Either on the back of the picture or attached to it with

a slip will be seen the name of it. There is a descriptive line attached to each one.

Senator MORGAN. When did you get these photographs?

Mr. MAGOON. These two packages were handed to me the day that I sailed, and the negatives of this other package were handed to me, and I brought them here and had them printed.

Senator MORGAN. You sent people out to get them?

Mr. MAGOON. Yes, sir. A good many of them were views which you can get that are on sale, but not all of them.

Senator HOPKINS. Those represent the houses where they live?

Mr. MAGOON. Yes, sir.

Senator SIMMONS. In answer to the statement that these Jamaican negroes were going home because of bad treatment, I saw in the Washington Post a day or two ago the statement that during the month of January, I think, two shiploads of Jamaican negroes, one containing 500 and the other 550, had been landed on the Isthmus, and that those darkies had not only paid their own expenses, but that they had paid a head tax imposed recently by the Jamaican government of \$5.

Mr. MAGOON. That is undoubtedly true.

Senator SIMMONS. It is true?

Mr. MAGOON. Yes, sir. It is a fact known to everyone who employs Jamaican labor, either along the north coast or the west coast of South America, or on the Isthmus or elsewhere, up in Mexico, when they were building the railroads there, that about the holiday time with us they return to Jamaica if they can possibly get the money. At that season of the year it is not only festival season, such as Christmas and the holiday time, but they also have their races there, and there is a great deal of interest in them.

Senator ANKENY. Horse races, Governor?

Mr. MAGOON. Yes, sir; pony races.

Senator ANKENY. They are civilized, are they not?

Mr. MAGOON. Yes, quite, in that respect. During that time these Jamaicans flock back from wherever they may be. After the races are over, or after the Christmas season is past, they return to the gold fields or the silver mines or wherever it may be that they are working. They are now beginning to return, or were before I came away; they were coming back again. You will find in the affidavits of the clergymen which I have filed with you the affidavit of Adjutant Jackson of the Salvation Army, who has been working in Jamaica and is an Englishman who has been in and about the West Indies for practically all his life, doing mission work. He refers to that, and to the fact (which I know by common report) that there are negroes going back to Jamaica and practically becoming our immigration agents, as they are exhibiting money and spreading about information as to what easy jobs and good wages there are over on the canal.

Senator SIMMONS. And you are getting all that you want without the Government defraying their expenses?

Mr. MAGOON. Yes, sir. You are mistaken, Senator, in calling that a head tax imposed by Jamaica.

Senator SIMMONS. That is what the Post calls it.

Mr. MAGOON. During the days of the French régime the French suspended operations, as of course you know, and there were a very large number of Jamaicans stranded on the Isthmus. They could not



get their pay, or if they did get their pay it was not enough to take them back, and the default in payment came from the contractors, not from the company itself. Anyway, there were a large number of Jamaicans stranded on the Isthmus, and the Jamaican government had to maintain them for a long time and finally bring them back to Jamaica at a large cost to the colonial government. So now they require that an emigrant going to the Isthmus shall deposit enough to pay his return passage, so that when he calls upon the British consul for the protection which the British Empire gives its subjects it will not cost the government of Jamaica any money.

Senator SIMMONS. They did not exact this \$5 deposit while you had our agent out there, did they?

Mr. MAGOON. No.

Senator SIMMONS. And our agent was withdrawn as soon as they did exact it?

Mr. MAGOON. Yes.

Senator SIMMONS. That is what I understood. Now, we were told here in the early days of this investigation that arrangements had been made to bring over about 500 Spaniards for the purpose of experimenting with them.

Mr. MAGOON. Yes, sir; none of those men had arrived when I came away, but I saw by the press this morning that the first lot of them had arrived. I think those, however, came from Cuba. I am not sure of it, but there were some of those Spaniards who were brought to Cuba by Sir William Van Horne to work on the Cuban Railroad, and arrangements were made to get them down there with us. I am inclined to think that that experiment is liable to result advantageously. The Spaniard, of all European people, is the one who has succeeded in going into the Tropics and establishing himself, maintaining himself there, even to the exclusion of the natives.

Senator ANKENY. Is not that, Governor, just one particular district of Spaniards—the northern district—the Bastan district?

Mr. MAGOON. Yes, sir.

Senator ANKENY. There is one district there the inhabitants of which are particularly adapted for it; is not that the evidence?

Mr. MAGOON. Yes, sir; they are accustomed to heavy mountain work.

Senator MORGAN. I wish to ask you, Governor, in regard to the present relations between the Government of Panama and the government of the Canal Zone, which is the Government of the United States, as I assume?

Mr. MAGOON. Yes, sir.

Senator MORGAN. Are there any questions now in dispute between the two governments?

Mr. MAGOON. If you will permit me, I will read you, that you may get both sides of it, the letter which Secretary Guardia wrote in connection with that.

Senator TALIAFERRO. Do you not think you could just answer the question, without reading that?

Mr. MAGOON. I was going to give it from both sides. I was going to say "No," and Guardia says "No" also.

Senator TALIAFERRO. Well, that is "no," then.

Senator MORGAN. I would like to hear that.

Mr. MAGOON. He says:

"I have the honor to answer your letter, dated the 16th instant, in which you request of me to state whether this office has received any complaint concerning the manner in which the Panamanian laborers are treated in the Canal Zone.

"I am pleased to say that although it is true upon the commencement of the work, when the organization period was in progress, there was disaffection due to failure of punctual payment of wages, as well as on account of bad nourishment, after the Commission regulated their payments and secured proper nourishment and healthy quarters, the Panama Government has never received a single complaint. On the contrary, comfort and satisfaction is observed.

"One of the facts which has contributed more to eliminate the ill feelings which were felt during the earlier period is the careful attention and benevolence with which all Panamanians, no matter how unfortunate they be, are treated in the canal hospitals.

"In other respects, I take delight in declaring to you that my Government and the entire country are completely satisfied since Minister Taft made his first visit to the Isthmus, and who, being well cognizant of our condition and of our legitimate interests, initiated a policy of cordiality and justice which you have so admirably known how to carry out in such manner that we have never had the least friction with the American Government, and all matters which have been treated or are pending have had or it is expected will have a satisfactory conclusion."

He closes with complimentary references to President Roosevelt and Secretary Taft.

Senator MORGAN. That is very satisfactory. There are now no questions then, pending between the Governments?

Mr. MAGOON. Of course there is the question of permanent provision for the mutual exchange of fugitives from justice.

Senator MORGAN. Yes.

Mr. MAGOON. There is that. That is a question which they would be very glad to have permanently fixed so that it will not depend upon the good nature or the friendly relations of the two Governments. It would be something that would be regulated by law. I have had correspondence with them, and they understand the difficulty of taking any action until there is some legislative provision.

Senator MORGAN. Have you in your charge or keeping in any way the correspondence that took place about the time that the friction was existing between the two Governments?

Mr. MAGOON. I have not.

Senator MORGAN. Where is that?

Mr. MAGOON. Whatever correspondence took place between the Government of Panama and the government on the Zone would be on file down there in the office of the governor of the Zone.

Senator MORGAN. There was correspondence besides that between the minister of Panama and the Government of the United States?

Mr. MAGOON. I presume very likely.

Senator MORGAN. Yes. Can this committee, in order to arrive at the grounds of the dispute or trouble or controversy between the two Governments, have access to those letters?

Mr. MAGOON. So far as the letters that are on file in the office of the Commission are concerned, they are entirely at your disposal. All you have to do is to call on the Secretary of War for them. I mean

to say, you do not have to send down to the Isthmus for them. You can call for them, and copies will be forwarded to you. So far as the State Department is concerned, of course you know what the rule is respecting that as well as I.

Senator MORGAN. You are an officer of the State Department?

Mr. MAGOON. Yes.

Senator MORGAN. As minister down there?

Mr. MAGOON. Yes, sir.

Senator MORGAN. Is there any correspondence that you have conducted with the Panama Government as minister that you are at liberty to exhibit to this Commission?

Mr. MAGOON. Not that I know of. I have not it with me.

Senator MORGAN. You have had a good deal of correspondence, have you not, since you have been minister?

Mr. MAGOON. On these propositions?

Senator MORGAN. On any proposition.

Mr. MAGOON. Very little correspondence with them.

Senator MORGAN. Whatever it is, would you be at liberty to submit that correspondence to this committee?

Mr. MAGOON. I should think that I would have to ask the committee to apply to the head of the State Department.

Senator MORGAN. The head of the State Department—I think so too.

Mr. MAGOON. Yes.

Senator MORGAN. In any controversy that might arise between them and you as governor, which you would handle also as minister—for instance, in regard to the arms of the Panama Government that we now have stowed away there at Emperador, or anything of that kind—would you be at liberty to inform the Commission in the Zone or this committee as to the nature of that correspondence without the consent of Mr. Root?

Mr. MAGOON. In respect of those arms?

Senator MORGAN. Yes; or any other thing like that that might arise.

Mr. MAGOON. I should think so; yes. As to that I should ask you to apply to Secretary Taft. The arms were not turned over to the American minister. They were turned over to the governor of the Zone.

Senator MORGAN. But you are the governor of the Zone?

Mr. MAGOON. Yes, sir.

Senator MORGAN. And they are in your custody as such?

Mr. MAGOON. Yes, sir.

Senator MORGAN. And you are also minister to Panama?

Mr. MAGOON. Yes, sir.

Senator MORGAN. Suppose they were to put a question to you as governor of the Zone, as to the redelivery of those arms to the Government of Panama; would you feel authorized to act upon that without the consent of the Secretary of State?

Mr. MAGOON. I would.

Senator MORGAN. You would?

Mr. MAGOON. Yes, sir. They are simply held subject to the orders of the Panama Republic.

Senator MORGAN. Is that a fact? Are they held subject to those orders?

Mr. MAGOON. Yes, sir.

Senator MORGAN. Or are they merely in our custody because of our policy of trying to keep arms out of the hands of the Panamanians?

Mr. MAGOON. The request that we take charge of them came from the Panamanians. We are simply the custodians of them. Upon the receipt of such a request I should of course immediately communicate it to Secretary Taft.

Senator MORGAN. Why could not they take care of their own guns?

Mr. MAGOON. I think that they thought that at the time they disbanded their army it would be a bad thing to simply have them stored somewhere without any guard. Therefore they requested General Davis to assume the safeguarding of them.

Senator MORGAN. Was not the purpose of putting them within the Zone to keep them out of the reach of the Panama provincianos, so that those fellows, if they undertook to start a revolution, could not get those arms without invading the United States?

Mr. MAGOON. That is a matter that I did not know about. I did not conduct any of the negotiations. The arms were in the Zone, in the warehouses, in an old storehouse there, when I arrived.

Senator MORGAN. But you feel yourself under an obligation, as governor, now, if that Government should desire you to surrender those arms back to them, to do so?

Mr. MAGOON. I would; yes, sir.

Senator MORGAN. What arms are they?

Mr. MAGOON. Most of them, you know, or a large portion of them, have been sold. The Panama Government has sold them.

Senator MORGAN. Sold them to whom—to the United States?

Mr. MAGOON. No; they were sold, I think, some to Guatamala, and all along the line. I think there are left three cannon——

Senator MORGAN. Rapid-fire guns?

Mr. MAGOON. Yes; rapid-fire guns and some small arms.

Senator MORGAN. About how many?

Mr. MAGOON. I do not know; I could not say.

Senator MORGAN. Repeating rifles?

Mr. MAGOON. Oh, they are of an old type, an abandoned type, an obsolete type.

Senator MORGAN. Such as Springfield guns?

Mr. MAGOON. Yes.

Senator MORGAN. How about ammunition? Have you charge of the ammunition also?

Mr. MAGOON. Yes, sir; there is quite a lot of ammunition there that is fixed ammunition, and of not much account, so officers who have inspected it have reported to us.

Senator MORGAN. Your obligation, then, as you understood it, is to deliver these arms back on the demand of the Panama Government?

Mr. MAGOON. Yes, sir; it is the treaty of the Panama Government.

Senator MORGAN. If a pronunciamiento was uttered down there, and the men who would rise as one man should undertake to institute a government de facto, would you feel authorized to return these guns to that government?

Mr. MAGOON. I should immediately ask for instructions from my superior officer.

Senator MORGAN. From whom?

Mr. MAGOON. Secretary Taft.

Senator MORGAN. And not from the Secretary of State?

Mr. MAGOON. I should of course anticipate that Secretary Taft would confer with him. Of course no one can tell what he would do until the situation arises.

Senator MORGAN. Yes.

Mr. MAGOON. But sitting here now, I should say that I would immediately advise both Mr. Secretary Root and Mr. Secretary Taft that the newly created government had asked me to turn over those arms.

Senator MORGAN. Suppose Secretary Root should object, and say, "I am afraid for those guns to go back there;" then what would you do?

Mr. MAGOON. I could not tell until the occasion arose.

Senator MORGAN. I do not think anybody can; and that is the point I was trying to get at—whether or not there can be centered in one gentleman the powers of the governor of the Panama Zone and the powers of minister to the Panama Republic. It seems to me there is a necessary collision between the two, and I want to get at whether you—

Mr. MAGOON. I do not think so, Senator. Take the example of which you speak. Suppose there had been two men down there. Suppose there were two men.

Senator MORGAN. Yes.

Mr. MAGOON. The Panama Government would say, "Mr. Minister, you are the representative of the Government of the United States, and the United States has some property, some guns, some ammunition. You should call upon us officially and recognize our new organization down here, and we would like to have you advise your Government that we want those arms. We demand them of you as the representative of the United States Government." And suppose he was to send that statement up to the Department of State, and the Department recognized them, then it would be all right, and he would turn them over to them.

Now he advises the Panama Government that the United States is willing to turn over those arms and to go and get them. The governor, when they arrive, reports to the Secretary of War. The Secretary of War says, "Well, you hang on to those arms." Now it is an impossible proposition, of course, that such a thing should occur, that two Cabinet officers should fail to agree upon such a matter. But what would be the consequence, excepting that there would be two officials down there at a point of disagreement because there were two up here?

Senator MORGAN. Well, if the governor should get obstinate about it and say, "I won't give up the guns," then what control would the Secretary of State have over him?

Mr. MAGOON. I do not know, Senator.

Senator MORGAN. But if you are a subordinate of the Secretary of State, you know what will become of you if you do not obey that order, do you not?

Mr. MAGOON. No; I do not.

Senator MORGAN. Well, I think I do. [Laughter.]

Mr. MAGOON. I suppose I would continue to be governor just the same.

Senator SIMMONS. Do we maintain any military force on the Isthmus?

Mr. MAGOON. Oh, yes; yes, sir.

Senator SIMMONS. What is it?

Mr. MAGOON. There is a detachment of marines there.

Senator SIMMONS. Of what number?

Mr. MAGOON. About 300 now. They are stationed at Bas Obispo. They have been there at all times.

Senator KITTREDGE. What are the conditions at Colon, and what steps are being taken to improve that condition?

Mr. MAGOON. Colon lies around a semicircular roadstead, you might say, rather than a bay. It was originally a morass. It is an island, and it was, as I say, originally a morass. The French, or the Panama Railroad, selected it as a good place for their piers; and the road was taken there, I presume, to get out to the deep water, to get the piers out, and the town was built at the end of the pier.

At one end of this town is the point of Cristobal, originally a part of Colon, but taken over by the United States at the time of the erection of the Zone. At Cristobal are located the large houses built by De Lesseps and occupied by us as offices; also the warehouses, the quarters, and the barracks for the men. At the other end of Colon is the hospital. There is a large hospital there, the second largest hospital on the Isthmus.

The work of the Commission in the way of sanitation was, up to a recent date, centered at these two extremes of the town; and especially at Cristobal the work has been substantially completed, until we enter upon a much more extensive plan of permanent sanitation of the island.

Between these two points there have been two broad streets filled in with gravel and brought to practically as good condition as though they were macadamed. The day that I sailed from the Isthmus I drove over these streets that I might speak of their condition as it was at that time. There are three streets at right angles to these—the cross streets, in other words—that have been filled up.

The permanent sanitation of Colon was made the subject of an investigation by a committee of engineers.

Senator SIMMONS. When?

Mr. MAGOON. They reported on November 8 last at my suggestion. I wrote a letter to Mr. Stevens saying that I wished he would select some engineers to study the question of the permanent sanitation of Colon. He did, and this report was the result of it.

Senator TALIAFERRO. That is covered in Mr. Stevens's testimony, is it not?

Senator KITTREDGE. Yes; I think it is.

Mr. MAGOON. That has been offered, has it, in evidence?

Senator KITTREDGE. No; that has not. Mr. Stevens testified upon the same subject.

Mr. MAGOON. Did he offer the report?

Senator TALIAFERRO. I think that ought to go in.

Mr. MAGOON. As I say, that committee made a report and this is a copy of it.

Senator TALIAFERRO. What is that report, just in brief? You need not read it.

Mr. MAGOON. It is a plan for the drainage of the island, with one large drainage canal going through it and with lateral lines leading into the main canal, with cement drains and well-defined ditches to carry it off.

Senator TALIAFERRO. That canal is where one of these main streets is located?

Mr. MAGOON. Yes, sir. Yes; the canal down Bolivar street is probably what you have in mind.

(The report above referred to was, at the direction of the committee, made a part of the record, and is as follows:)

CRISTOBAL, November 8, 1905.

Mr. JOHN F. STEVENS,

*Chief Engineer, Isthmian Canal Commission,  
Ancon, Canal Zone.*

SIR: The undersigned committee, appointed by you in your letter of September 22, 1905, to consider the whole question of the improvement of Colon, have the honor to submit the following report:

Your instructions provided that necessary municipal improvements should be considered which go to make up a healthy and desirable town. Your committee have held numerous meetings, nearly all of which have been at night, as the individual members have not been able to give the required time during the day.

Numerous plans and schemes have been proposed, and all have received careful consideration. All the members of the committee are thoroughly familiar with the conditions existing, and in addition we have made several inspections of the ground in considering the detail conditions to be met with. We have not considered the question of water supply, as we understood that plans for this have already been definitely worked out and provided and that material for executing the plans is now under way.

The main portion of the town, and that part to be considered, comprises an area of something less than 100 acres. The main streets run approximately north and south, or parallel with the Panama Railroad. They are known as Front street, which immediately adjoins the railroad, Bolivar street, and D street. The cross streets are numbered from No. 2 up, Second street being the most northerly one. The blocks bounded by these streets are 300 feet square exclusive of the streets, and are divided in half by alleys running parallel with the north and south streets. These alleys are only 20 feet wide. As a matter of fact, these alleys are used as streets and houses are built on them the same as on the other streets. It is considered that these alleys are entirely too narrow for street use, and we have to recommend that these alleys be widened to a width of 40 feet. This will require the moving or tearing down of the buildings that front on these alleys. A map is inclosed which shows in detail the proposed dimensions. It will be noticed that these alleys, which it is proposed to widen to 40 feet, known as Bottle, Cash, and Hudson, extend back to the block between D and E streets.

East of E street it is proposed to replat the town, making the blocks 200 feet by 300 feet instead of 300 feet square, as they are at present. There are practically no houses of any moment east of E street.

It is believed that the widening of these narrow streets or alleys will increase the value of the lots adjoining them to a greater extent than the loss sustained by reducing the area of the lots.

An inspection of the conditions existing in Colon will convince one very quickly that the matter of providing a pleasant and habitable

town is largely dependent on the drainage. The town stands on ground which was originally only  $1\frac{1}{2}$  to 2 feet above mean low tide. The ground adjoining the railroad has been filled in to a greater or less extent, and this filling slopes back to D street, whose surface is that of the original ground for almost its entire length. The simplest way of providing drainage would be to raise the surface of the ground by filling to a sufficient elevation to give the necessary fall for sewers and surface drainage. No general or extensive plan of filling, however, is deemed advisable or practicable by the committee, owing to the extreme cost. There are nearly six hundred houses which would require raising if any extensive filling should be done.

Many of these houses are hardly worth raising, but they could not be abandoned without some compensation to their owners. It is believed that the cost of raising these houses will not be less than \$750,000. A plan which would contemplate a sufficient elevation to provide for all drainage and for future expansion would require not less than 750,000 yards of material, and it is not believed this could be put in place, under the circumstances, for less than \$1 per yard, or \$750,000, making a total expense of grading and filling of not less than \$1,500,000. Not only would this be very expensive, but it would require a long time to complete, and put a burden of transportation on the Panama Railroad which it is not now, and will not be for some years, able to carry. For this reason no general filling to any great extent is proposed.

It is proposed to dig a ditch along D street, having an elevation at the bottom of about 4 feet below mean low tide, to be about 10 feet wide, with concrete side walls with their tops at an elevation of  $1\frac{1}{2}$  feet above mean low tide. Into this it is proposed to discharge gutters on each side of the east and west streets. These gutters will be about 15 inches deep, and will form a portion of a combined concrete curb and gutter. The top of the curb at D street, where the gutter enters the ditch mentioned, will have an elevation of  $1\frac{1}{2}$  feet above mean low tide. These gutters will be given as great a rise as the present configuration of the ground will allow, and at no point will this rise be less than 6 inches in 300 feet.

It is proposed then to fill all the lots to an elevation of at least 2 feet above mean low tide. This will give a slight fall to the gutters and it is believed will at least prevent water standing in them for any long period of time. These curbs and gutters will extend to Front street, and similar gutters will catch the drainage on the north and south streets and discharge into them at the intersections.

*Streets.*—In connection with the curb and gutter described above, it is proposed to make the roadway of a 60-foot street 36 feet wide between curbs; of a 40-foot street 24 feet wide between curbs. It is proposed to macadamize these streets, the foundation to be of Telford, 8 or 9 inches deep, laid with care, the top or wearing surface to be of broken stone or gravel having a thickness of 1 to 2 inches, the total depth of paving being about 10 inches. The streets will be given a crown of six inches, the center having the same elevation as that of the curb. It is believed that the Telford foundation can be made of indurated clay, which can be procured in the vicinity of the dry dock, and will thus avoid the necessity of long railroad transportation. It will be necessary to bring the top dressing or wearing surface from some point on the railroad, as no suitable rock exists in the vicinity of



Colon. The filling for the low lots, as explained above, may also be made from this indurated clay or from the soil which overlies it, and which may be obtained in the vicinity of the dry dock or Monkey Hill.

*Sewers.*—The plan of the sewer system proposed is inclosed herewith, which consists essentially of short lines of pipe laid on the east-and-west streets, all discharging into the intercepting sewer on D street. Owing to the very limited fall available it is not considered possible to discharge these sewers by gravity into the sea, and owing also to the fact that the ditch on D street will practically have no current—its surface will rise and fall with the tide—it is not desirable to discharge the sewers into it. It is proposed, therefore, that a small pumping station be installed for handling this sewage through a pipe line, discharging into Manzanillo Bay. These sewers are for domestic use only and will not carry any rainfall or surface drainage. The plan outlined above contemplates the improvement of that portion of the town lying west of D street only. It is proposed that the houses east of D street, or the larger number of them, should be condemned or moved and raised if they are worth it.

During the construction of the ditch, or afterwards, a levee can be thrown up along this street to a height of 2 to 4 feet, as may be determined later, and the area east of this line may be filled by the hydraulic method, the material to be either obtained from rehandling dredged material deposited in the bay about opposite Ninth street, or it may be procured directly from dredging Manzanillo Bay. This filling should be of sufficient extent to suppress mosquito-breeding swamps for a sufficient distance east of D street as may be deemed desirable by the sanitary department. Before this work is done due consideration should also be had to provide for probable expansion and growth of the town.

It is believed that the construction of the sewer system, granitoid curb and gutters, grading, and paving of the streets can advantageously be done by contract.

It is recommended that, if the provisions of this report are approved, specifications be prepared for this work and contracts be let for same as soon as practicable.

*Buildings.*—It is believed that a better class of construction of buildings in Colon is very desirable. It is also believed that the construction of better buildings will be encouraged by more liberal terms in the length of life of the ground leases, or by selling the property outright. It is believed that deeds can be prepared which will safeguard the construction to a very large extent.

It is recommended that all blinds, tight fences, or other obstructions surrounding buildings which tend to prevent the close inspection or the free admission of light and air should be removed and their further construction prevented. There should be but one building fronting on any one 30-foot lot. It is believed that no building should be constructed with less than 3 feet clear space between it and the adjacent building. It will be necessary, in order to secure these results, that new buildings adjoining old ones, where the old ones are built out to the lot line, be set back 3 feet. On all unoccupied lots the new buildings should be put up  $1\frac{1}{2}$  feet from the lot lines. The floors of all buildings should be placed at least 2 feet in the clear above the surface of the lot.

*Garbage.*—The present method of disposing of house and street garbage by collecting in carts and hauling it into the swamp to a sufficient distance from the surrounding houses is fairly satisfactory, and with reasonable care can be made unobjectionable, and until the town reaches a considerably larger size can be continued.

It is recommended that until the establishment of a permanent sewer system, mentioned above, that necessary public and private privies be built and the bucket system of caring for night soil be instituted.

In submitting estimated cost of the improvements as outlined above no amount for razing or moving buildings is allowed. It is believed that, first, under the terms of the leases east of D street they can be terminated under short notice, and property owners would necessarily remove their houses or abandon them; second, it is believed that when the improvements contemplated are made the value of the land will have increased to such an extent that the owners of the buildings can well afford to raise and repair them or rebuild as they see fit.

## ESTIMATED COST.

Moving buildings to widen alleys.....	\$13, 500
Excavation of ditch along D street .....	1, 200
Concrete sidewalks for same .....	24, 000
Curbs and gutters .....	25, 000
Paving streets .....	45, 000
Sewer system .....	50, 000
Filling, 50,000 yards, at \$1 .....	50, 000
<b>Total .....</b>	<b>208, 700</b>

Respectfully submitted.

F. B. MALTBY,  
F. E. WATSON,  
EARNEST H. WHEELER,  
E. W. CLARKE,  
R. CAMPILLO,

*Committee.*

**Mr. MAGOON.** The water supply of Colon is abundant as to quantity and excellent as to quality. It is taken from the hills up there beyond Monkey Hill. The permanent reservoir is not completed. That when completed will hold about 500,000,000 gallons of water. There is, however, a temporary reservoir which will be made a part of the permanent reservoir. I mean to say, it is temporary in that we have cleaned off the brush and put up a temporary dam to check the water. That holds 80,000,000, and it has been connected with the old French supply of water for the city of Colon, giving ample supply, and is conducted down to the city and distributed through the old Panama Railroad distribution pipes. The facts as to that I have in a report which I made to Secretary Taft on January 8. [Reading:]

“Two temporary reservoirs for Colon and Cristobal water supply were completed on November 1, the other the latter part of December. The total capacity is 80,000,000 gallons; amply sufficient for present dry season; 7,000 feet permanent feed mains already laid; remaining 9,000 feet now being laid at rate of four to five hundred feet daily; distribution system installed by French for supplying Cristobal connected with permanent feed mains on December 20; house connection

made to all buildings at Cristobal occupied by white employees, and 10 distribution hydrants installed for laborers' quarters; 6 tanks, with a total capacity of 65,000 gallons, held in reserve at Cristobal in case of accident; complete permanent distribution system will be completed by May 1; present Panama Railroad water system for Colon will be connected with permanent feed mains before January 15, and free public distribution stations will be opened then, supplying all of Colon. Colon people now securing water from tanks, as in years past, and from public hydrants in Cristobal; permanent water mains, including fire service, will be completed on principal streets in Colon by end of dry season, April 15, supplying the entire city.

"At present no scarcity of water in Colon; permanent reservoir capacity 500,000,000 gallons. There are under construction two permanent standpipes, 400,000 and 500,000 gallons capacity, under contract to be completed by April 1; complete domestic sewer system is already installed for all houses occupied by white employees at Cristobal; surface drainage will be completed by end of present week; 4,700 feet of concrete drains laid; streets in splendid condition in Colon; since October 17 the two principal lengthwise streets and three cross streets were raised and rebuilt and two lengthwise streets and six cross streets ditched and graded ready for top dressing; 1,043 cubic yards of gravel used up to date; 5,041 feet of concrete gutters built; the work of raising and rebuilding all streets in inhabited portion of town will be completed by end of dry season; one block of drainage canal bisecting town constructed; work progressing now at rate of 30 feet per day; will probably be completed by end of dry season. Impracticable to undertake permanent domestic sewer system for Colon until commencement of permanent improvement of city, depending on determination of the plan of constructing canal."

Then I direct attention to this report which I have submitted here.

Senator KITTREDGE. You refer to the engineers' report?

Mr. MAGOON. Yes, sir. It was on file in the Washington office, and I called attention to it. In connection with this general subject I also reported that "from May, 1904, to December, 1905, inclusive, there were 125 cases of yellow fever in Panama, 3.33 cases per thousand inhabitants per year; for the same period 61 cases in Colon, 3.38 cases per thousand. From December, 1904, to November, 1905, inclusive, there were 2,210 deaths in Panama, 55.84 per thousand inhabitants per annum; for the same period in Colon there were 529 deaths, 44 per thousand death rate among our employees on the Isthmus; for the year ending October 31, 24.30 per thousand. See monthly reports of the health department on file at the Washington office of the Commission; also my annual report for details as to quarters for negro laborers in Colon being overcrowded. Model quarters with concrete floors and shower baths, etc., are rapidly approaching completion."

Now, gentlemen, in a nutshell, that is the condition. As stated, the city of Colon was built on a morass which was entirely surrounded by water. There lies back of the city the larger portion of the island, which is morass now, as it was at the time the city was laid out. Colon is a city of some 6,000 inhabitants. The land is largely owned by the Panama Railroad Company, but the houses are very largely owned by the people who have leased the lots and constructed houses thereon. These

houses are of private ownership and flimsy; they do not amount to much more than a protection from rain.

Senator ANKENY. What are the nature and limit of those leases?

Mr. MAGOON. Most of them were from year to year. I want to call attention to the fact that these houses were built there years ago; that we found them there when we came there. When the American Commission arrived there these houses were already built and they were built in the locations where they now are, out on the morass. That is, some of them are there; not many, relatively; but such houses as are out in the morass were there when we came. They were located as places of residence or as building spots by people who were not in our employ then and who in a great many instances are not in our employ now. That some of them have built houses that sit down low or that sit up high, or that the latrines are at an inconvenient distance from the house, is not the fault of the Commission. We did not build them, and we have nothing to do with them excepting to regulate sanitary measures.

The permanent filling up of that island is a matter which can be accomplished in one of two ways: One is by bringing dirt down from the hills and dumping it in there, which will be a very difficult thing to do, because you can not build railroad tracks out into that morass to dump from. The other is to have a centrifugal dredge and throw it in from the sea. Or you can bring the dirt down from the hills and dump it into a dump or sink in the Fox River, and then throw it over with the dredge, or you can take the mud that you excavate in making the channels.

Up to the present time there has not been there a dredge which was capable of throwing that water over on the islands. We have not had what we call a centrifugal dredge. A dredge was purchased about six months ago, and the latest advice I had was that it would soon be on its way to the Isthmus. When it arrives we will have a feasible means of starting in to fill up that island, provided the plan of the canal which is adopted is one which would justify the expense (and it would be a large expense) of filling up that island. Should the canal enter the Caribbean Sea at a point distant from the town of Colon it would be more than likely that the town would move to the entrance to the canal or nearer it than where it is now.

(The committee thereupon adjourned until to-morrow, Wednesday, February 14, 1906, at 2 o'clock, p. m.)

(The following letters, which were referred to by Mr. Magoon in the course of the foregoing statement, are, by direction of the committee, printed as a part of the record:)

---

ISTHMIAN CANAL ZONE, EXECUTIVE OFFICE,  
*Ancon, January 19, 1906.*

SIR: Referring to my letter of even date, transmitting letters from the various consuls located at Panama representing countries whose citizens or subjects are employed in canal construction, I have the honor to inclose herewith a translation of a letter received from the French consul, Mr. G. Bonhenry, also copy of a communication addressed by Mr. Bonhenry to the governor of Martinique, copy of

his letter to the Department of Foreign Affairs, and copy of a memorandum giving the result of his investigations as to the condition of the Martinique and other laborers.

I have also the honor to inclose a copy of a telegram sent by me to Mr. Bonhenry on January 16, asking him if complaints continued to be received by him in regard to the mail service of the laborers, and a copy of a telegram from Mr. Bonhenry in reply, stating that no complaints had been received lately and that he believed the service has improved.

Yours, very truly,

CHARLES E. MAGOON,  
*Governor.*

The SECRETARY OF WAR,  
*Washington, D. C.*

(Inclosures: Translation of letter from Mr. G. Bonhenry, copy of letter to governor of Martinique, copy of letter to department of foreign affairs, copy of memorandum of Mr. Bonhenry, copy of telegram from and to Mr. Bonhenry.)

---

[Translation.]

COLON, *November 16, 1905.*

MR. GOVERNOR: Mr. Jackson Smith, chief of the department of labor and camps of the Isthmian Canal Commission, invited me some time ago to visit the Zone, in order that I might see the condition obtaining with regard to French employees.

This invitation was made on account of the incidents which occurred during the recent arrival of certain laborers from Martinique by the steamer *Versailles*, and with the view to make known the true conditions of the laborers engaged on the canal work, as well as to calm the apprehensions which various reports had caused in certain places, above all at Martinique.

I hastened to accept this kind invitation, and due to this visit, which I completed with another made to the Colon Central Hospital, I have addressed to-day to the department of foreign affairs a letter, accompanied by a detailed report which I will forward to the governors of Antilles French colonies, and one copy of which I have the honor to send you.

You will observe from a perusal of this report that I have taken delight in ascertaining the general satisfactory condition of the several departments I inspected. However, I thought it my duty to point out some things that I have judged as deficient. It is not possible, however (everybody will agree with this), to obtain perfection in the beginning in an organization as extensive and complex in its elements.

Permit me therefore to call your benevolent attention and that of the heads of departments to which you may report upon the different desiderata stated in this report, specially in chapter concerning quarters, on the necessities which exist, in my opinion, of furnishing the workmen upon their arrival, in the interest of their health, one woolen blanket in which to sleep. In chapter concerning nourishment, on the benefit which would be obtained over the system used at the Antilles by supplying in abundance provisions, such as sweet potatoes, yams,

manihots, fresh meat, and fish, as promised by President Shonts. In chapter concerning salaries, the execution as soon as possible of the projected improvements for payment each fortnight.

Finally, in chapter "General annotations," on the advantages to be derived by the Commission as well as by the workmen, by introducing games and amusements into the camps; the facilities to be given to laborers in the service of mail, and the establishment of a complete system of identification of personnel.

If I take the liberty to bring these observations before your high authority, observations which have been suggested by a conscientious study made on the ground, it is because I am pleased to hope that, by showing the exact situation, some improvement may be made in the condition of the Frenchmen now employed on the Isthmus, and that I may, probably, make better known to strangers the organization which has been placed under the care of yourself and of your distinguished collaborators of the "Isthmian Canal Commission."

I beg you, Mr. Governor, to accept the assurance of my high consideration.

G. BONHENRY.

---

[Translation.]

[Copy of a letter addressed to Mr. A. Bonheure, governor of the colony of Martinique, by the French vice-consul at Colon, November 16, 1905.]

SIR: I have the honor to forward to you, under this cover, copies of a letter and of a report addressed by me to-day to the department of foreign affairs, and copy of a note of the same date to the governor of the Canal Zone, relative to a visit which I made to the camps of the French migratory laborers in the employ of the inter-oceanic canal.

As you will see in turning over these pages this visit was made as a result of the desire of the American authorities to show me in detail the organization and the arrangements made for the working personnel of the canal in order that this information might be given publicity abroad. For my own part I took advantage of this occasion to inform myself more completely, in order that I might be in position to reply to the frequent communications of which I am in receipt, on the part of many anxious inhabitants of your colony, who have a relative or a friend in the service of the Isthmian Canal Commission.

Perhaps the very conscientious investigation which I have just completed will result in calming the exaggerated apprehension of the people of Martinique, if you see fit to communicate these documents and the accompanying photographic views to the local governments and to the public; the knowledge of the facts will, at least, bring to their attention the interest and the administrative solicitude which the undersigned feels, and has never for an instant ceased to feel, for the natives of Martinique residing in this consular district in their character as French citizens.

I shall not fail to inform you of such reply as I may receive to the recommendations, in this connection, which I have made to the government of the Canal Zone.

G. BONHENRY.

[Translation.]

[Copy of a letter addressed to the Department of Foreign Affairs (American Bureau No. 13) by the French vice-consul at Colon the 16th of November, 1903.]

Subsequent to the occurrences marking the arrival here last month of certain Martiniquans, engaged by the Interoceanic Canal, and in order to give greater publicity abroad to the arrangement made and the treatment accorded by the American Government to its laborers, the chief of the branch of labor and quarters of the Isthmian Canal Commission, Mr. Jackson Smith, invited the undersigned to make a personal visit to the barracks of several thousand migratory French laborers, natives of Martinique, at work upon the canal.

Desirous of informing myself more completely upon a question which interests the people of our possessions in the Antilles, and which seems, very justly, to have been a source of large concern to the government of Fort de France, I made haste to accept the invitation which was so kindly extended to me.

Your excellency will find hereto attached, in the form of a memorandum, the result of the observations made in the course of the investigation, which I have just completed upon the spot, entering each house, questioning officials and laborers, and encouraging to the best of my ability some of our homesick fellow-citizens. I was very courteously accompanied by Mr. Henry Burnett, acting for Mr. Jackson Smith, who is on leave, and by Messrs. Wood and Maguire, local camp superintendents.

Wishing to render my report as complete as possible, I also visited Colon Hospital, which passed with the canal into the hands of the United States, and has recently been restored and enlarged. Dr. Lloyd Noland, the present superintendent, was so kind as to show me in detail over the plant, especially that portion reserved for colored persons.

It is a pleasure to testify that the different schemes which have been devised, and the arrangements made upon all sides, bear witness to the genuine solicitude of the American Government for the amelioration of the material conditions of life of the laborers in its service. Of course a question so new and complex for the representatives of the United States as that presented by the labor problem involved in the construction of the canal can not be solved in an instant in all its ramifications, and it is assuredly no easy matter, in the actual condition of the country, to provide for the wants of a mixed, working population of different and sometimes opposite tastes, which has increased within a few months to twelve or thirteen thousand individuals. It may be said in passing that the higher employees as well as the laborers have suffered from the first inconveniences of the inauguration of the work on account of the lack of quarters and of arrangements of all sorts, but marked progress has been made in every respect, and this should be duly recognized.

It goes without saying that I heard complaints of different nature and more or less well founded. I was able on the spot to inform the officers of the service who accompanied me of some of the grievances which were explained to me, and whenever it was possible measures were very obligingly taken for the immediate relief of the conditions complained of. A certain number of these grievances, nevertheless, could not be remedied without an appeal to higher authorities. Your

excellency will find herein inclosed a copy of a letter which I have to-day addressed on this subject to the governor of the Canal Zone. At the same time I have invited the attention of the Hon. Charles E. Magoon to the question of the amusements which it might be possible to provide for the exiled and expatriated Martiniquans, who are too much inclined to give way to homesickness. This question has recently received consideration with reference to the clerical and other employees. It might equally well be agitated as regards the laborers.

It may be stated that a step has already been taken in this direction, the Isthmian Canal Commission having recently conceived the idea of bringing from Martinique, together with the laborers who had been engaged, their families and children, as well as the families of those laborers who had previously come to the Isthmus. Moreover, free passage was offered to other Martinique women whom it is intended to employ as cooks and laundresses in the camps of their compatriots. A detachment of 310 women has just arrived from Fort de France. It is probable that this will render it easier to attract and retain Martiniquan laborers on the Isthmus, and there is ground for supposing that the experiment will bring satisfactory results. In any event, one can not but praise the spirit of this measure.

I may say, moreover, that all the Martiniquans to whom I spoke concerning this matter seemed to properly appreciate it. My visit took place on a Sunday, in order that I might find the laborers at their barracks, and I had the good fortune to arrive at several camps of French negroes in the midst of dances and rejoicing. I might add here in parenthesis that the striking appearance and excellent carriage of our Martinique women, both in their working dress and in their Sunday finery, has been remarked by the American Government in contrast to the appearance of the women of the other non-French West Indian Islands.

According to information which has been furnished me there is no pressing need for a very large number of common laborers on the line of the canal, and there will be none until work is resumed on a large scale, according to the definitive plans which are soon to be approved by the Congress at Washington. On the contrary, the demand is for first-class skilled labor—carpenters, cabinet makers, locksmiths, mechanics, masons, tinsmiths, blacksmiths, etc., in order to complete the work of sanitation and to place in a state of repair the houses and barracks for the personnel and the material left by the old French company.

My present report compared with that of last August will show the progress made upon the Isthmus in the lines with which it deals. I shall not fail to send a copy of it to the governor of Martinique, together with some photographic views taken by myself upon the spot, and without inviting immediate migration to the Isthmus the publication of these facts will show the actual conditions (as I had already shown them on a previous occasion), and it will contribute, I hope, to allay the anxiety of the inhabitants of that colony who have relatives here and who have been alarmed by unreliable and exaggerated reports disseminated in bad faith and who address to the undersigned letters exhibiting a feeling of alarm, which is assuredly without foundation.

I will add with reference to the incident of the steamer *Versailles*, to which I allude in the last paragraph, that I have had occasion to see those unfortunates whom a strange panic drove to a state of forget-



fulness of their duty, and the sad situation which you know, since their arrival at the camps of the Commission. Probably from a sense of self-respect, none of these men was willing to admit to me that he had been one of that unhappy mob which the Compagnie Generale Transatlantique was forced to drive from its steamer by the aid of foreign police. Some of them, however, whose faces I distinctly recalled, and who could not deny it, declared to me that they had been the victims of demagogues. The latter, who were apparently determined to disseminate discord in the camps, are under close surveillance, and will doubtless be eliminated without delay if they persist in their reprehensible attitude.

In concluding I feel it my duty to mention the fact that several chiefs of the service voluntarily expressed to me their satisfaction with the labor of the Martiniquans as compared with that obtained from other laborers. Nevertheless, on account of the disturbance caused in our colony by the Versailles incident, and on account of a species of apprehension which seems to prevail there with regard to the Isthmus, the Isthmian Canal Commission has decided not to solicit for awhile a new consignment of Martinique laborers, and the recruiting agent at Fort de France has been recalled. It is intended to await the revival of confidence which will be produced by the favorable reports made by laborers on the Isthmus to their friends and relatives in Martinique. The lot of those who are here will improve from day to day with the progress of the work of the Isthmian Canal Commission.

G. BONHENRY.

---

*Report attached to dispatch from vice-consulate of France in Colon to department of foreign affairs (American bureau No. 13) under date November 16, 1905.*

#### VISITS TO CAMPS OF FRENCH RESIDENTS ON THE WORKS OF THE AMERICAN CANAL ZONE.

I. *Quarters.*—As soon as the American administration was established on the Isthmus there followed a large flow of population, and it was necessary to lodge the hands wherever possible. There existed a large number of buildings, formerly used by the French Canal Company, but time and climate had brought most of the houses and dwellings to a decaying state. However, the best had to be done with what was on hand until sufficient quarters could be established. At this moment dwellings for all actually employed (clerks and laborers) are almost completed.

The camps are generally located on the heights or the sides of hills, and the sanitary department has particular care of them. Single laborers are lodged in houses measuring about 10 by 14 meters, and containing for the most 40 beds. They are built of wood, with the ground floor elevated, floored with boards covered with zinc. These quarters are whitewashed inside and kept in a most rigorous state of cleanliness. Various modes of sleeping accommodations have therein been installed, and in some camps wooden beds are found similar to those used in the police station of the French army. Elsewhere there are superimposed beds with two or three bunks, with a wooden hot-

tom, or with a canvas one, such as are used in our casemates; other camps have folding canvas beds.

I have been told that the superimposed bunks, with iron frame and canvas mattress, are the most appreciated ones, which are to be definitely adopted. The laborers when questioned by me on this subject, some declared that they preferred the wooden bed, and others the canvas ones, stating, all of them, that the other system is the cause of rheumatismal pains. It is clear that, suppose they sleep with clothes wet with perspiration, or otherwise, they may get cold, thence affections of the chest, frequent here, and other fever. It is indispensable in this wet climate, especially during the rainy season and in the foggy valleys of the Isthmus, to use dry clothing to sleep with, and even a light woolen blanket. The American administration does not provide the last article, and leaves it to the interested to buy same for themselves. Now those arriving do not receive any salary for a month, and in any case can not have any credit until after several days, such as is given with the coupon system, which will be mentioned further. The undersigned will bring this matter to the attention of the superior authorities.

As for the married laborers, separate quarters are furnished to each family, either by placing partitions in the above-mentioned dwellings, or for foremen, in separate houses with veranda.

In many camps no lighting material is supplied for fear of fire, as I was told; but soon electric plants will be established everywhere, to be used as motive power and for lighting purposes. The actual want of light will then be largely filled up. Shower baths have also been placed in many camps, which will prove effective for the maintenance of good health among the employees.

On the demand of those interested I requested and obtained from the superintendents, Messrs. Wood and Maguire, to have the Martiniquian laborers, as much as possible, placed in the same quarters and not mixed up with other West Indians, whose languages and ways are different to those of our residents.

II. *Food*.—The American administration supplies food to every laborer that wishes it for 60 cents per day; that is, 1 franc French money, to be retained on settlement of each fortnightly pay. The meals are served in special dining halls, kept very clean. This food, which the undersigned has tasted himself in several places, is mostly composed of coffee, rice, dry vegetables, corn, potatoes, codfish, and salted beef. This food, which would do well for laborers from Europe or North America earning 4 francs a day, is not pleasant to all the Wese Indian creoles, as I was told by our Martiniquians, who are used to eating fresh fish, sweet potatoes, plantains, and other produce of the tropical soil; unfortunately these latter are cultivated on the Isthmus on a very small scale, and what is found here, being mostly imported, is of a very costly price.

The competent department for this service in the Canal Commission has been very busy with this question and is endeavoring to secure supplies of these articles at a better rate. Contracts were recently passed with exporters from Jamaica. Besides, cold storage is now being established on board the Government ships plying between New York and Colon for the transportation of fresh beef and vegetables to the Isthmus. Special depots will also be put up in Cristobal and Colon, and cars also specially fitted will be used for distributing these provisions

all along the canal line. The laborers are, besides, entitled to 1½ pounds fresh bread a day, bakers supply the bread almost everywhere, and in very few camps biscuits are still served in lieu of bread.

Those arriving who do not receive any salary for nearly a month get their food in that way, and a deduction is made on the basis of 60 cents per day on their first pay.

The laborers who have cash on hand can go on taking their food from the canal kitchens or they can prepare their own food, buying what they please and where they please. Many of them can join together in one mess or place same in the hands of one of the Martiniquian women recently arrived, and whose part it is to help their countrymen in this precise way, and these women can even procure on the Isthmus those dishes and things they were used to in their own country.

Moreover, a recent decision has just brought a good improvement in this matter of food for the laborers. Branch stores of the commissary in Cristobal Colon are established in several places along the canal line, where can be found what is necessary for food and clothing.

Each clerk and laborer employed by the Isthmian Canal Commission, who wishes it, can obtain for each fortnight a coupon book for a limited total value, according to class of clerk and laborer. These coupons can be presented for payment for anything purchased in the various commissaries.

According to recent arrangement these coupons may be received by any independent business house on the Isthmus, to which the value of the coupon will be paid by the Isthmian Canal Commission cashier.

Thus, the laborers who, as a rule, seldom have ready cash, will be able to avail themselves at once of part of their salary, sufficient to enable them to buy at least such provisions of which they are fond since their childhood.

III. *Salaries.*—Laborers are paid at the rate of \$1.60 per day Panamanian money, equal to 4 francs French money, that is one franc more than at the beginning when the American administration first started, and 2 francs more than during the time of the New French Company of the Panama Canal. Moreover the day's work has been reduced to eight hours. Professional workmen, such as carpenters, locksmiths, mechanics, blacksmiths, etc., who thoroughly understand their trade get after a certain time of trial much higher salaries, reaching up to \$4 or \$5. Foremen can get double the above salaries. Extra hours are paid for at one and a half the rate of ordinary hours.

Contrary to what was first done, those newly arrived have not to work for the amount of their transportation to the Isthmus. The first salaries earned are no longer retained on that account. The American administration gives free passage to those chosen by their recruiting agent and who desire to get work on the canal. They then believe that they can rely solely on the advantages offered on the Isthmus to the immigrants, to keep those who really intend to earn their living by their work, and who will induce other laborers to come.

Administration procedure on the Isthmus does not as yet allow salaries to be paid in less than twelve or thirteen days after they are due for the fortnight. On that account nearly a month is spent before those newly arrived can get their first pay. This is what almost all the Martiniquians can not understand, or, at least, complain of. I could only promise to call the attention of the authorities to the prejudice caused by such a long delay in the settlement of the fortnightly

pay, which settlement was made with one-third or one-fourth the delay during the epoch of the French company. Trials of every sort have been made to improve the method of preparing the pay rolls. I am assured that a method of procedure is now being studied which will allow salaries to be paid day by day. Until then a better method will very soon be used by which the fortnightly salary will be paid within three days after it is due.

The coupon system before mentioned, which partly compensates the difficulties above mentioned, was fully explained to me by our resident compatriots on request of Mr. Burnett, manager of the labor department. This system appears to them as being advantageous and an easy one. Each fortnight, after five days of actual work for those fed by the administration, or after three days for those who feed themselves, the laborers can demand a coupon book to the amount of \$5 redeemable in goods by any of the commissaries or by any independent merchant. This innovation will allow those among the laborers who are skilled workmen to buy the necessary tools and be sent to the various workshops of the canal. In fact, the administration insists upon every one who pretends to be a skilled workman providing for himself certain tools necessary in his trade as a guaranty of his ability.

It is generally claimed that the salaries actually paid are too low, owing to the dearness of the necessities of life, the prices of which are daily growing higher on the Isthmus. However, salaries, as before stated, are almost double what they were at the time of the last French company and customs dues are less by half than they were then. Formal promises have been given by the president of the Isthmian Canal Commission, Mr. Shonts, to improve the situation of the laborers by giving them cheaper means of living by placing at their disposal, at low prices in the commissaries, food stuffs and articles of clothing. The establishment which is now being prepared of cold storage in ships, depots, and cars is a step toward the realization of such promise.

IV. *Medical attention.*—The climate on the Isthmus is about the same as in the neighboring countries of the mainland and the West Indies. There is, however, more rain, and fogs are frequent. The very extensive and laborious works for improving the sanitary conditions are not entirely completed, although about one-third of all the personnel is employed thereon, and those works themselves cause serious and quite prevalent diseases.

However, the sanitary conditions on the Isthmus are relatively satisfactory, the latest statistics show 25 deaths only per 1,000 persons per annum, and a number of 301 sick and under treatment out of 12,000 laborers; that is 2½ per cent. There is actually no case of epidemic or contagious disease.

Of course, after change of residence there must be a period of acclimatization, during which time those newly arrived, wherever they come from, must pay a heavy tribute to the climate of the Isthmus.

All the workmen engaged by the Isthmian Canal Commission are entitled to free medical treatment and to free admission to the hospitals in case of sickness. The doctor in each camp is in attendance every morning in a special hall where those that are ill must see him, unless they are unable to get up. The sick men are either treated on the spot in the camp infirmary or sent to one of the hospitals of the

Canal Zone. The central hospitals in Colon and Ancon (Panama), which date from the time of the former French company and which have been recently repaired, are models of their kind.

The Colon Hospital, remarkably located near the sea, was visited in all its details by the undersigned, who was guided by the medical director, Mr. Lloyd Nolan. It was found in perfect condition as regards installation and organization. Nine doctors, assisted by 24 graduated nurses and about 30 waiters (most of them knowing the creole patois of the West Indies), are now taking care of 210 sick men, of which about 40 are Martiniquans. There are two halls for operation, which halls are in perfect order. The rooms for the sick men are very well kept, with perfect cleanliness and good ventilation, and of a bright and pleasant aspect. Flies, mosquitoes, and other insects are kept out by means of nets in the windows and doors. An annexed laboratory is used for examining the blood and urine of the patients suffering from malaria or any other fever; 48 analyses were made the day of my visit. Those suffering of yellow fever are rigorously isolated in special rooms screened with wire netting.

Part of the sick men are at present under tents for want of sufficient quarters, but two buildings are now being constructed, one for white and one for colored men. These will be ready for use, the latter within a few weeks, and the former in two months. It will then be possible to receive and take care of 450 patients, and to meet the demands which will occur at the opening, in the beginning of 1906, of the important works of the canal at this as well as at the other end of the line.

The undersigned questioned a large number of Martiniquans, actually under treatment, and they all acknowledge satisfaction with the manner in which they are cared for. The greater number of our resident compatriots are ailing with a species of malaria, a sort of fever germ most likely due to change of climate, although none have died from fever. On the other hand, a few (about half a dozen who arrived about two months since) died from diseases of the chest. I have already stated the probable cause of this kind of disease, which seems largely spread among all the laborers on the line, and I have the intention of calling the attention of the authorities to this matter. Many are suffering from hernia or other accidents due to weak constitution, badly fitted for hard work. I was shown a case of elephantiasis, and a case of tuberculosis, both supposed to be past remedy. These patients are to be repatriated.

The question of sanitary improvements and medical treatment is the one which has been mostly studied in the Isthmus, and which has given most satisfactory results.

The preceding statements can not strengthen the praise and encouragement which from every source has been accorded to the distinguished doctor placed at the head this service, Colonel Gorgas, and to his devoted assistants.

*V. General remarks.*—On their arrival on the Isthmus the first Martiniquan immigrants felt very much out of sorts, ignorant, as they were, of the English language, which is almost exclusively used in this country. But the greater number of West Indians, already arrived at this time, either from Martinique, St. Lucia, or Dominica, has produced the result that the inconvenience of only knowing French creole patois is much lessened, especially if, as above indicated, the

immigrants coming from the same colony are located together in the same camp. Besides, they can in that way, after their work is done, talk together about their impressions and about their country, and, if need be, encourage each other. On this subject many Martiniquians complain of not being able to meet freely at night before being obliged to retire, each to his own quarters, at too early an hour. If it is necessary to oblige the men to observe a certain period of complete rest, in order that they may furnish a given amount of work, it is also evident that at certain times some relaxation from this rule would not be prejudicial to their work. For example, if the men were allowed to meet on Saturday evenings.

It is likewise certain that it would be to the interest of the American Administration to favor, by every effort, the organization and entertainment of their laborers, at least, in the same manner as it was lately done for the clerks. These West Indian people are, indeed, of a gay character, but very much inclined to sadness. The feeling of being out of their country, of being alone, the change, somewhat hard, in the food, the fatigue of the work, the hardships of the climate, may cause in them disgust, ennui, and homesickness, causing desertion from their camps and giving outsiders a bad impression of them. It would therefore appear to be necessary to make every effort to keep the laborer attached to his camp, and to that end to make the camp as comfortable as possible (the coming of the Martiniquan women is a real step in that way). Entertainments could be provided such as could be adapted to the laborers' condition and the custom of his country. The expense could not be very high, and the results would certainly be of great advantage. The amount of work done would not be lessened and the recruiting of new laborers from outside would be made much easier, owing to the nature and the spread of reports sent home by those already on the Isthmus.

As regards the means of correspondence with foreign countries, many complaints were submitted to the undersigned. The laborers claim that letters posted by them in the Canal Zone post-office do not reach their destination, inasmuch, as it is said, that these letters remain without any answer. On the other hand, I have been asked from Fort de France for information concerning husbands, sons, brothers, and relations, who had left for the Isthmus, and whose families were without news from them. The attention of the American post-office administration ought to be called to that question. There is some fault in this matter, either owing to improper address on the letters or to the way the mails are forwarded. The question is a delicate one; but it seems that some posters could be put in the camps at the post-office, giving to those interested the necessary direction for addressing letters to be sent or received. Those writing from the outside could be informed by the residents on the Isthmus of the proper way of addressing their replies to the Canal Zone.

This brings forth the question of identity in the case of the laborers employed by the Isthmian Canal Commission. It is not even now possible to know in what part of the line such and such a man is working, also in case one of them dies, it is impossible to draw a statement of death in an exact and complete manner and inform the interested families. It would be necessary, for that purpose, to insist on each one on his arrival showing his papers and immatriculation at his consulates. It seems, however, that a mode of identification is now being

studied based on anthropometry (reduced to the description of the hand) by which it will be possible to know at any time the residence and condition of any man employed by the Isthmian Canal Commission. I may add that an endeavor is being made to do away with or legalize the free unions of man and wife, so frequent in these countries, and, consequently, no couple is recognized as husband and wife unless they can show papers duly establishing their marriage.

Before ending I must mention the complaints received by me from the Martiniquans as regards the conduct toward them while at work in the Canal Zone. Those newly arrived have met with conditions totally different to what they were accustomed to in the West Indies or other tropical countries. The chiefs of the service and the American foremen are accustomed to furnish themselves and to require of their employees and workmen active work, which they demand brusquely, by gesture as well as verbally, and in a manner that may seem rude to the foreigners. It is certain that among those ignorant of the English language, and in the absence of an interpreter, mistakes can be frequently made at first, and thus cause annoyance, which sometimes is brutally manifested, but with the use of current English working terms and the strict, quick, and exact accomplishment of the work given a great deal of trouble will be avoided.

G. BONHENRY.

---

PANAMA RAILROAD COMPANY,  
*Panama, January 16, 1906.*

G. BONHENRY,  
*French Consul, Colon:*

Referring to your report to the department of foreign affairs, dated November 16, 1905, about complaints of mail service, do complaints continue to be made, or has service improved?

Please telegraph answer.

MAGOON, *Governor.*

---

*Colon, January 16, 1906.*

Governor MAGOON, *Panama:*

In answer to your telegram just received concerning complaints about mail service in the Zone, which were embodied in my general report to the department of foreign affairs, Paris, dated November 16, 1905, I am pleased to state that no complaints have been received lately by this consul. I believe that said service has improved.

G. BONHENRY, *French Consul.*

---

ISTHMIAN CANAL ZONE, EXECUTIVE OFFICE,  
*Ancon, January 19, 1906.*

SIR: I have the honor to acknowledge the receipt of your communication dated January 6, 1906, advising me that charges had been made in the United States that the common laborers in the employ of the Commission and of the government of the Canal Zone were being

mistreated, and directing me to secure statements from the consuls stationed at Panama setting forth the facts respecting the treatment of such laborers by the Isthmian Canal Commission and its agencies.

Responding thereto, I have the honor to transmit the original letters and translations thereof received from the consuls of the several governments whose citizens and subjects are employed in the work of canal construction. These letters were written in response to communications addressed to the consuls by me; and in order that the consuls might speak with the utmost freedom, I did not advise them of the purpose of the request, but stated that, being desirous of improving the service and promoting the comfort and welfare of our employees, the Commission would be pleased to receive from them advices as to whether or not their countrymen were lodging complaints with them, and if so, their kind and character; also, such suggestions respecting the betterment of the laborers' condition as the consuls saw fit to make. I inclose you a copy of the letter addressed to the Hon. Claude C. Mallet, the British consul at Panama. A similar letter, modified to fit the case, was addressed to each of the other consuls.

No better method of ascertaining the exact facts could be devised, for foreigners in Central and South America invariably appeal to their consuls if they think they are being mistreated. This is true especially of the subjects of Great Britain. When I first came here and before the commissaries were opened to the silver employees and the present system of payment introduced, it was no uncommon sight to see the street in front of the British consulate filled with a crowd of men clamoring for the assistance of Consul Mallet in correcting their grievances.

It occurred to me that you would be glad to receive a letter respecting these matters from His Excellency Santiago de la Guardia, minister of government of the Republic of Panama. I therefore addressed a letter to him and transmit a copy thereof, and his reply. You doubtless can bear witness to the fact that the citizens of Panama do not hesitate to call upon their Government to secure for them either redress or benefits; you also know that Secretary Guardia is a man of high mind and purposes, who would not hesitate under any conditions to respectfully, but firmly and fearlessly, call for and insist upon the rights of his country and countrymen, and the fact stated by him that "After the Commission regulated their payments, secured proper nourishment, and healthy quarters, the Panama Government has never received a single complaint. On the contrary, comfort and satisfaction is observed," will, I doubt not, be gratifying to you and be accepted as positive assurance that we are doing the best we can and accomplishing even more than can reasonably be expected.

Yours, very truly,

CHARLES E. MAGOON,  
*Governor.*

The SECRETARY OF WAR,  
*Washington, D. C.*

---

(Inclosures: Nine letters and translations representing thirteen countries, from Frederico Boyd, Claude C. Mallet, Arturo Kohpcke, I. Presiado, Jerónimo Ossa, Enrique C. Llorente, J. Gabriel Duque, Luis Uribe, Samuel Boyd.



Copy of letter to Hon. Claude C. Mallet.  
Copy of letter to His Excellency Santiago de la Guardia.  
Copy of letter from His Excellency Santiago de la Guardia.)

---

ANCON, *January 16, 1906.*

DEAR SIR: The working out of the general plan adopted by the Commission for housing, feeding, and paying the laborers engaged in canal construction work has reached a point where consideration can be given to individual suggestions that may lead to betterment of the service. The end sought by the Commission is to adopt and execute sanitary measures that will overcome adverse climatic conditions and avoid the ravages among our employees of tropical diseases which in the past have rendered it impossible to maintain the efficiency of large bodies of workmen on the Isthmus.

The plan of sanitation necessarily involves providing our workmen with quarters constructed with special reference to the tropical climate, a constant and ample supply of pure water, and an adequate supply of wholesome food, properly prepared for consumption. Equally important, from the standpoint of the laborers, is the amount of compensation, regular and prompt payment of wages, proper treatment and consideration by the superintendents, foremen, bosses, etc.; also fair, just, and proper treatment by the police and other governmental agencies exercising authority in the Canal Zone.

The Commission desires to avail itself of every means of ascertaining ways and means of producing this desired result and to secure information as to wherein and whereby there has been a failure of such attainment. Such information will enable us to apply needed remedies.

During the first three months of my service on the Isthmus (May, June, and July) many complaints were received from workmen respecting poor accommodations, ill treatment, and delays in payment of wages. It was apparent that these resulted in large measure from the confusion incident to the period of organization. As the work of organization and reorganization proceeded the number of complaints lessened, until now they have practically ceased, the few complaints presented relating almost exclusively to discharges claimed to be unwarranted.

I am aware of the fact that the foreigners on the Isthmus are accustomed to apply to the consul of their home government for assistance or relief in any and every matter wherein they think they are receiving improper or unfair treatment. A large percentage of the laborers in the employ of the Commission are subjects of Great Britain from Jamaica and other British colonies in the West Indies. I doubt not that if these people are dissatisfied with their treatment by the Commission and its agencies they bring their grievances to you, because you have the honor to represent a government whose subjects are well aware takes prompt and vigorous steps to protect them from invasion of private rights and personal prerogatives.

I therefore take the liberty of requesting that you will render the Commission, and me personally, the service of communicating in writing whether or not at the present time you are in receipt of complaints

from the subjects of Great Britain now on the Isthmus as to the treatment accorded them by the Commission and American authorities, and, if complaints are being received, their kind and character.

Very respectfully,

Hon. CLAUDE C. MALLET,  
*British Consul, Panama.*

\_\_\_\_\_, *Governor.*

[Translation.]

PANAMA, January 18, 1906.

MR. GOVERNOR: I have the honor to answer your letter dated the 16th instant, in which you request of me to state whether this office has received any complaint concerning the manner in which the Panamanian laborers are treated in the Canal Zone.

I am pleased to say that although it is true upon the commencement of the work, when the organization period was in progress, there was disaffection, due to failure of punctual payment of wages, as well as on account of bad nourishment, after the Commission regulated their payments and secured proper nourishment and healthy quarters the Panama Government has never received a single complaint. On the contrary, comfort and satisfaction is observed.

One of the facts which has contributed more to eliminate the ill feelings which were felt during the earlier period is the careful attention and benevolence with which all Panamanians, no matter how unfortunate they be, are treated in the canal hospitals.

In other respects, I take delight in declaring to you that my Government and the entire country are completely satisfied since Minister Taft made his first visit to the Isthmus, and who, being well cognizant of our condition and of our legitimate interests, initiated a policy of cordiality and justice, which you have so admirably known how to carry out in such manner that we have never had the least friction with the American Government, and all matters which have been treated or are pending have had, or it is expected will have, a satisfactory solution.

Finally, I can assure you, without fear of contradiction, that if the name of President Roosevelt is spoken in Panama with praise and respect, those of Minister Taft and yourself are repeated with affection, because in your conduct toward us and in all actions concerning us you have proceeded as true friends of our country.

I am, with highest consideration, your obedient servant,

SANTIAGO DE LA GUARDIA.

Hon. CHARLES E. MAGOON,  
*Governor of the Canal Zone, Ancon.*

BRITISH CONSULATE,  
Panama, January 17, 1906.

SIR: I have the honor to acknowledge the receipt of your letter of the 16th instant in reference to the housing, feeding, and paying of the laborers in the employ of the Isthmian Canal Commission, and requesting me to state in writing whether or not at the present time I am in receipt of complaints from subjects of His Majesty on the

Isthmus as to the treatment accorded to them by the Commission and American authorities, and, if complaints are being received, their nature and character.

It affords me much pleasure to comply with your wish, and I take this opportunity to observe that your laudable desire to obtain information regarding these matters, with a view to the betterment of the service, is only in keeping with the excellent work already accomplished under your direction, and which has resulted in the marked, all round improvement in the treatment accorded to the large number of British subjects who are in the service of the Commission, or who reside within the limits of the Canal Zone.

As regards the British West Indian, perhaps nobody on the Isthmus can speak with more knowledge of the treatment they have received than I can do, accustomed as they are to appeal to the consul with every imaginable kind of complaint, and after an official experience in such matters covering a quarter of a century, including all the French Canal period, I do not hesitate to say to you that the conditions of the laboring man in the Canal Zone, as regards his treatment, are better to-day than they have ever been within my recollection. And this can not be otherwise, for the costly and important sanitary measures which have been effected, improved housing, the supply of good water, wholesome food from the commissaries at reasonable cost, are improvements which are bound to bring about a feeling of contentment and help to overcome the adverse climatic conditions and avoid the ravages of tropical diseases which in the past have made it impossible to maintain the efficiency of large bodies of workmen on the Isthmus of Panama.

As regards complaints made to the consul against the Commission, I have to say that up to November last there was general discontent exhibited in consequence of the delay in the payment of wages, due, as I understand, to the somewhat complicated system then in vogue, and I was frequently appealed to by large bodies of laborers who alleged they had not been paid their wages, in some instances, for six weeks, and were bordering on a state of destitution. I invariably brought these cases to your notice, or to the notice of Paymaster Shafer, when the reasonable demands of the workmen always received sympathetic attention, and a way was found to appease them, either by the immediate payment of their wages or providing them with food while arrangements were being completed.

Individual complaints of harsh treatment by members of the Zone police, the foremen of gangs, or bosses were of daily occurrence at the commencement of the works undertaken by the Commission in the Canal Zone and the Republic of Panama, and were to be expected during the process of organization of so large a body of workmen, but each month they have grown less, and in last December only four cases were brought to my attention, two of them of a personal character so trivial that they required no consideration, and two of a more serious nature, which were courteously investigated by the judicial authorities of the Zone and proved to be without foundation.

I have the honor to be, sir, your obedient servant,

C. MALLET,  
*His Majesty's Consul.*

HON. CHARLES E. MAGOON,  
*Governor of the Canal Zone.*

## CONSULADO DE LA REPUBLICA DE CUBA EN PANAMA,

*Panama, January 17, 1906.*

DEAR SIR: I beg to acknowledge receipt of your esteemed favor of the 16th instant, in which you request me to answer some questions, and I do so with pleasure.

There are many employees and laborers who are Cuban citizens employed by the Commission, and though last July and August many complaints were made to me regarding different matters, I must frankly confess that during the past three months not one single complaint has come to my knowledge, and on the contrary they seem quite contented.

I really can not suggest any betterment, except perhaps that payments should be effected promptly and on regular dates, say on the 3d and the 18th of every month.

I have to state that the Commission at present takes care and provides for their common laborers better than what any one man or employer could possibly do.

Trusting this will serve to acquaint you with the actual situation regarding citizens of the Republic which I have the honor to represent, specially the laboring class,

I am, very respectfully,

J. GABRIEL DUQUE,  
*Consul of the Republic of Cuba  
for Panama and the Canal Zone.*

HON. CHARLES E. MAGOON,  
*Governor Canal Zone, City.*

---

[Translation.]

MEXICAN CONSULATE,  
*Panama, January 17, 1906.*

YOUR EXCELLENCY: I have the honor to acknowledge the receipt of your excellency's letter of yesterday in reference to the measures adopted by the Isthmian Canal Commission for the handling, payment, and subsistence of the laborers which it employs in the construction of the interoceanic canal.

Having noted all that your excellency has to say in the letter to which I refer, I think it only just and impartial to declare that considering the obstacles of all kinds that as a general rule are involved in the organization of works connected with an enterprise of great magnitude, as the one in question undoubtedly is, the Commission of which you are a worthy member has succeeded, in the opinion of all sensible men residing on the Isthmus who have had an opportunity of examining the matter at close range, in obtaining highly satisfactory results by inaugurating methods that by their efficacy and humanity have overcome certain obstacles that existed in the beginning, and that were nothing more than the natural results of the very excusable experience which may always be observed as accompanying enterprises so beset with obstacles and of such magnitude as that to which I refer.

As regards the treatment of Mexican citizens in the service of the Commission or established in the Zone at the hands of the Isthmian Canal Commission and the government of the Canal

Zone, I take pleasure in assuring your excellency that no complaints have been received at this consulate since the 15th day of October, 1904, when I assumed charge, which in any way involved a breach of contract, failure to pay wages, denial of justice, or abuse of authority on the part of the Isthmian Canal Commission or of the government of the Canal Zone.

With repeated assurances of esteem and regard, I have the honor to be,

Your excellency's obedient servant,

ENRIQUE C. LLORENTE,  
*Mexican Consul.*

CHARLES E. MAGOON,  
*Governor of the Canal Zone, Ancon.*

---

CONSULATE-GENERAL OF BOLIVIA,  
REPUBLIC OF PANAMA,  
*Panama, January 19, 1906.*

DEAR SIR: I beg to acknowledge the receipt of your important communication, bearing date of the 16th instant, contents of which I have perused with natural interest, and it affords me pleasure to refer to same in compliance with your request.

Owing to there not being many Bolivian residents on the Isthmus, the colony being rather limited here and the greater part employed in the harbor, no complaints of any consequence or serious in nature have been laid before this consulate; and certainly none during the past few months. During this period, as I believe, and what I have heard from my colleagues, matters in this respect have improved very considerably, and now very few or none of any importance are being entered.

Regarding the final part of your letter, I consider it my duty to testify to the fact, and do it with pleasure, that the Commission is in no manner neglecting the acceptance of all practical and proper measures to promote in every way possible the sanitary and domestic comforts of its employees generally, devoting special attention in this respect to the laboring classes.

In this connection I beg to refer to a matter which at the time evoked much unfavorable comment, and that was the reported bringing into the Isthmus of Martinique women for immoral purposes. I could scarcely believe that the Government which you so worthily represent could be behind what appeared to me and to every sensible member of the community a disastrous policy, and so determined to make an investigation. I found that the reports were in every way exaggerated, and am pleased to take advantage of this opportunity to so inform you.

It is my belief that if those persons who are interested in portraying the real state of affairs regarding present conditions of the laboring classes on the Isthmus would take the necessary time to make a thorough and conscientious investigation, they would find that the lot of the laborer here is on the average equal if not better than, perhaps, that which can be found in any country under the same circumstances. He not only gets high wages, but his hours of labor are

short, he gets good and nourishing food, is furnished most excellent hospital service, and, as I am advised, has the right to be repatriated to his home when incapacitated for work or under circumstances that demand it.

Permit me on this occasion to thank you for the attentions and courteous considerations which you have invariably observed in the performance of your official duties in connection with matters relating to the accredited representatives of foreign countries in this Republic.

I have the honor to be, yours respectfully,

SAMUEL BOYD,  
*Consul-General of Bolivia.*

HON. CHARLES E. MAGOON,  
*Governor of the Canal Zone, Ancon.*

---

RO CONSOLATO D'ITALIA IN PANAMA,  
*Panama, January 18, 1906.*

DEAR SIR: I have the honor to acknowledge the receipt of your valuable communication, dated the 16th instant, contents of which I have carefully perused.

With regard to the several items which form the object of your inquiries, viz, the housing, feeding, and paying, etc., of the Italian laborers engaged in the canal construction work, I wish to say that I never had any complaints with regard to quarters, food, or improper treatment by foremen or bosses.

On the other hand, I may say that with reference to regular and prompt payment of wages I have had, especially at the beginning of the canal work, some complaints of Italians employed by the Commission, in one instance the departure of an Italian workman having been delayed on account of not being able to receive his wages in due time.

For the last two months I have no more been in receipt of complaints from any subjects of Italy now employed on the Isthmus as to the treatment accorded them by the Commission and American authorities.

On the whole, I have been looking upon this matter as the natural consequence of the immense and extraordinary amount of work connected with the organization and reorganization of this vast enterprise, which naturally could not be effected without giving rise to complaints of one sort or the other.

I have not the least doubt that the cause of the complaints above mentioned will entirely disappear in the same proportion as the organization of the work goes on and will be completed under the above management of the Commission.

I have the honor to be your excellency's most respectfully,

ARTURO KOHPCKE,  
*Acting Italian Consul.*

HON. CHARLES E. MAGOON,  
*Governor of Canal Zone, Ancon.*

[Translation.]

CONSULADO JENRAL DE CHILE,  
Panama, January 19, 1906.

SIR: Replying to your favor of the 18th instant, I take pleasure in informing you that the various Chileans employed on the works as miners, blacksmiths, mechanics, etc., have had no cause of complaint, and that, on the contrary, they have all expressed themselves as satisfied with the treatment which they have received at the hands of their respective officers.

There does exist, in the minds of some, a certain prejudice against the negro policemen of the Zone, who, in general, are harsh and gross, but I am confident that, thanks to the competent direction of Captain Shanton, all abuses of whatever kind will soon cease.

With sentiments of the highest esteem, I am,

Your respectful servant,

JERONIMO OSSA.

CHARLES E. MAGOON,  
*Governor of the Canal Zone, Ancon.*

[Translation.]

LEGATION AND CONSULATE-GENERAL  
OF THE REPUBLIC OF NICARAGUA.

SIR: I have the honor to acknowledge the receipt of your official communication bearing date of the 18th instant, whereby you request me to give you my opinion with respect to the form and manner in which workmen coming from neighboring foreign countries at present employed by the Isthmian Canal Commission are being treated; also as to the fashion in which these same workmen are quartered, fed, and medically attended, with the object, as you state, to see if it be possible to improve the conditions existing at present.

At the commencement of the previous year several workmen, natives of Nicaragua and San Salvador, applied to this legation and to the consulate-general of San Salvador, lodging complaints as to the manner in which they were treated, while they alleged that the delay in the payment of their wages prevented the procuring for themselves of the first necessities of life; also of the dearness and scarcity of food-stuff on the line and of the abuses which were then committed on their persons at the least pretense by the Zone police force.

I attributed the above regularities at the time to the natural consequences inherent to all new undertakings, especially to a work of the magnitude of the Isthmian Canal, and I would in all instances advise the said workmen to have patience, in the expectation that this abnormal state of affairs would disappear as soon as the organization of the works would be perfected and the different departments operated with all due regularity, and needful methods and discipline were established, similar conditions having previously existed when the ex-Inter-oceanic Canal Company, under the French régime, started to dig the isthmian canal, as they encountered the same difficulties in their way.

It gratifies me most extremely to be able to state to you that my expectations with respect to this, as well as the hope entertained by

all those who concern themselves over the welfare of these laboring men, have been fully realized and in a highly satisfactory manner, and that during the last three months many citizens of the Republics which I have the honor to represent and who are now engaged at work in the shops or along the canal line, instead of complaints as previously, have expressed themselves satisfied with the quarters assigned to them as lodgings, with the medical attendance they receive at the Commission's hospitals whenever they happen to be suffering from illness, cheapness of food stuffs, the facility with which these can now be procured, and general improvement in the treatment they obtain from their superiors. They also acknowledge themselves contented, being all well disposed to continue lending their services to the Commission as long as these will be needed.

You will please permit me, Governor, to avail myself of this opportunity, as dean of the consular corps, to represent to you how much all the members of this corps appreciate the spirit of justice and equity which they have always found in you whenever they have had occasion to treat with you upon subjects relating to their respective consulates, and also the cordial and most courteous manner in which you have heeded them.

With the expression of consideration and esteem, I remain, sir,

Your most obedient servant,

FEDERICO BOYD.

Hon. CHARLES E. MAGOON,

*Governor of the Canal Zone.*

---

[Translation.]

CONSULATE OF THE REPUBLIC OF COSTA RICA,

*January 19, 1906.*

SIR: I have the honor to reply to your letter of the 16th instant, in which you request me to inform you if, in my character as consul for Costa Rica, I had received complaints of any kinds from citizens of that country employed by the Isthmian Canal Commission relative to injuries which they may have suffered at the hands of the government of the Canal Zone or of the employees of the Commission.

In this connection, I think it my duty to reply that I have not received a single complaint from Costa Rican citizens working on the canal, due to reasons such as you mentioned, and I take advantage of the present opportunity to inform you that during your term of office in the Zone I have not heard any criticism of your government, but, on the contrary, I have heard on various occasions and from different persons expressions of loyalty and personal friendship toward yourself, inspired by the spirit of justice which actuate all your acts as governor, without distinction of nationality.

With sentiments of the highest personal esteem, I am

Your obedient and faithful servant,

LUIS URIBE,  
*Costa Rican Consul.*

CHARLES E. MAGOON,

*Governor Canal Zone, Ancon.*



CONSULADO DE ESPAÑA EN LA  
REPUBLICA DE PANAMA,  
*Panama, January 18, 1906.*

DEAR SIR: I have the honor to acknowledge the receipt of your esteemed letter of the 18th instant, and beg to inform you that this consulate has not any complaints of any nature from citizens of Spain who are employed on the Panama Canal.

From general observations, it is my candid opinion that your excellency has not neglected to take such steps as tend to promote the health and comfort of the employees who are engaged in this great work. It is gratifying for me to know this when I consider that some 1,000 natives of Galicia (Spain) are to be employed. The method of payment has been much criticised, but I am advised that conditions in this respect are much improved and that laborers will receive with more regularity every fortnight the wages due them.

In conclusion, I beg to state that the measures and the policy which are being carried out meet all the requirements so necessary in tropical countries to safeguard the health, comfort, morals, and happiness of the laborers, and much praise and commendation is due your excellency for your laudable efforts.

I have the honor to be, your obedient servant,

I. PRESTADO,  
*Acting Spanish Consul.*

HON. CHARLES E. MAGOON,  
*Governor of the Canal Zone, Panama.*

## ISTHMIAN CANAL.

---

COMMITTEE ON INTEROCEANIC CANALS,  
UNITED STATES SENATE,  
*Washington, D. C., Thursday, February 15, 1906.*

The committee met at 2 o'clock p. m. (no session having been held yesterday).

Present: Senators Millard (chairman), Ankeny, Morgan, Taliaferro, and Simmons.

### STATEMENT OF CHARLES E. MAGOON, ESQ.—Continued.

The CHAIRMAN. Governor, are you ready to proceed?

Mr. MAGOON. I think so; yes, sir.

The CHAIRMAN. If you have any suggestions to make yourself, we will hear you first, and then I will ask if any of the Senators have questions they wish to propound to you.

Mr. MAGOON. I do not think I have suggestions to offer.

The CHAIRMAN. I have no questions to ask you personally. Senator Morgan, do you wish to ask the Governor some questions?

Senator MORGAN. Yes.

Governor, I think you stated the other day that you had no information or knowledge about oil-pipe lines across the Isthmus.

Mr. MAGOON. No, sir; excepting what I have seen by the press.

Senator MORGAN. You have never been conferred with or consulted about any of these propositions to establish pipe lines there?

Mr. MAGOON. We have have discussed the question of the use of petroleum instead of coal.

Senator MORGAN. Yes.

Mr. MAGOON. And before I went to the Isthmus there had been a number of applications made—I say a number; I think there had been three applications of parties who desired to put a pipe line across the Isthmus.

Senator MORGAN. Had those applications been made to the Commission?

Mr. MAGOON. Yes, sir; I think so. I do not know that any of them had been made in writing, but there had been several people to confer about it.

Senator MORGAN. Have you any information of a concession that was made by the Panama Government to the Union Oil Works or the Union Oil Company for a pipe line across the Isthmus there?

Mr. MAGOON. I have heard that there was a negotiation pending.

Senator MORGAN. Were you ever consulted about it?

**Mr. MAGOON.** By the Panaman Government?

**Senator MORGAN.** Or our own Government, either?

**Mr. MAGOON.** No, sir; I do not recall. I would not say positively, but I do not recall it.

**Senator MORGAN.** I will put in the record, Mr. Chairman, a copy of a concession made by the Panama Government to the Union Oil Company of California, and I will read it:

**REPUBLIC OF PANAMA.**

On the first page of the principal contract has been affixed a national stamp worth \$25, which was affixed for having observed that the value of this contract offered \$5,000, and in order that the national treasury would have no prejudices.

**Secretary of finance:**

**T. MARTIN FERNIDEZ.**

The undersigned, Mr. F. V. de la Espriella, secretary of state in the department of finance, duly authorized by His Excellency the President of the Republic, of the first part, who will hereafter be called the Government, and Mr. Jose Augustin Arango, in representation of the company called the Union Oil Company of California, who will hereinafter be called the concessionaires, have agreed to make the following contract in accordance with resolution No. 621 of the office of the secretary of finance, dated the 3d of the present month:

First. The Government gives permission to the concessionaires in order to establish and work a pipe line for the transmission of petroleum across the Isthmus from the port of Panama to the port of Colon, and also to establish another similar line for the same purpose from one of the ports of the Pacific in the province of Chiriqui through the country. This line can be constructed following the highway or any other without causing any prejudice to those roads to any place on the Atlantic coast, and also authorizes to construct wharves and stations at the end of both lines.

Second. The permission granted by the preceding article will last until the Panama Canal opens for the transit of large steamers, provided that the concessionaires will fulfill all the obligations contracted with the Government by this contract.

Third. The plans for the wharves and places where the concessionaires have the right to construct at the ports of Panama and Colon shall be submitted for the definite approbation of the Government, and the places where they must be constructed will be designated by common accordance of both parties. The same requirement shall be fulfilled for the constructions of wharves and stations on the line which shall be constructed in the Province of Chiriqui.

Fourth. The concessionaires bind themselves to pay to the Government every year the amount of 3,000 balboas in compensation of the port duties, which will be caused by all their steamers which enter and depart from Colon and Panama with the exception of the light-house duties. The same franchise, provided that the payment of an equal amount is made, will be accorded to the concessionaires for the steamers that enter and depart from the ports in the Province of Chiriqui in connection with the transportation of petroleum through that country.

Fifth. The Government binds itself not to collect any taxes on the oil brought to the port of Panama to be sent across the Isthmus and exported to other places, and neither to the one imported for the service of the work of the canal, but the concessionaries are obliged to the payment of the legal duties for all the oil brought for any other purpose which is not the one mentioned before.

Sixth. The Government grants to the concessionaries the introduction, free of duties or taxes, of the pipes and materials necessary for the construction of the pipe line and its accessories, and the introduction of the materials for the construction of the wharves and stations.

Seventh. The concessionaries bind themselves to pay the amount of 1,500 balboas at the end of the construction of each pipe line and before this one is put to the service of the public; these 1,500 balboas correspond to the first semiannual payment of the amount of 3,000 balboas that shall be paid to the Government yearly, in accordance with the fourth article of this agreement; and to continue the yearly payment by semiannual payments in advance within the first ten days of the first month of each semiannual payment during the length of this permission. The nonpayment thirty days after the date in which it should be made will cause the cessation of this permission.

Eighth. The concessionaries bind themselves in whatever is connected with the installation of the system of pipes before mentioned within the Canal Zone, establishment of stations there, use of lines, embankments, support of bridges, etc., to deal directly with the representatives of the isthmian canal.

Ninth. The concessionaries bind themselves to begin the work for the installation of the first pipe line, which shall be established from Panama to Colon within eighteen months after the date of this contract, and to continue them without any interruption until the end of same, with exception of any unexpected occurrence.

The date to begin the works of the installation of the second pipe shall not exceed two years, which shall begin to count from the day in which the first pipe line will be put to the public service.

This contract requires the definite approbation of the executive power to be considered valuable.

In faith of which two similar copies are delivered in Panama, the 30th day of October of the year 1905.

F. V. DE LA ESPRIELLA.  
J. A. ARANGO.

NATIONAL EXECUTIVE POWER,  
*Panama, October 30, 1905.*

Approved. Register.

M. AMADOR, ———.

The secretary of finance.

F. V. DE LA ESPRIELLA.

Office of the secretary of finance, Panama, the 30th day of October, 1905. Registered from the folios 16 to 20 of the respective book under the number of 7.

The chief of the first section,

EMILIO AYALA.

Senator MORGAN (during the reading of the above concession). By the way, what is the value of a balboa?

Mr. MAGOON. It is the same weight in gold as an American dollar. It is supposititious coin. There has never been any coin, but they take a coin having so many grains of gold of a certain fineness as their standard, and they call that a balboa.

The CHAIRMAN. That refers to a dollar?

Mr. MAGOON. Yes; it refers to a gold dollar; yes.

Senator MORGAN. So that the amount mentioned in that paper would be \$3,000?

The CHAIRMAN. Yes.

Senator MORGAN. Has that concession from Panama ever been brought to the attention of the Isthmian Canal Commission?

Mr. MAGOON. I do not know whether it has ever been brought to the attention of the office up here. It has never been brought to my attention by the authorities of Panama.

Senator MORGAN. Well, you are a Commissioner?

Mr. MAGOON. Yes, sir.

Senator MORGAN. And you would have a notice of it?

Mr. MAGOON. Well, not necessarily. There is a quorum of the Commission here, while I am down on the Isthmus.

Senator MORGAN. So far as you are concerned, this is the first you have seen of this?

Mr. MAGOON. I have heard of it. I have heard references to it in the press, and I also saw in the press that some action had been taken here. That reached me just before my trip up here, and I have not taken the matter up [referring to the concession just read by Senator Morgan]. With reference to these ports, for instance, the line that crosses from the ports of the Pacific in the Province of Chiriqué through to the Caribbean—such a line could be constructed without touching the Zone.

Senator MORGAN. It could be?

Mr. MAGOON. Yes, sir; the one line. The line from Colon to Panama could not be.

Senator MORGAN. Is there any public highway leading from Panama to Colon outside of the Zone?

Mr. MAGOON. No, sir.

The CHAIRMAN. There is no highway of any kind there now except the railway, is there, Governor?

Mr. MAGOON. No, sir.

The CHAIRMAN. There is no wagon road?

Mr. MAGOON. There is no wagon road. There are still portions of the old Spanish trail, leading from Porto Bello over to the Pacific.

The CHAIRMAN. Where does that come into the railway right of way, or does it come in at all?

Mr. MAGOON. I do not think it comes into the railway right of way. It is within the Zone for quite a distance.

The CHAIRMAN. It is?

Mr. MAGOON. Yes, sir. But you can only see it here and there.

The CHAIRMAN. It is not used to any extent?

Mr. MAGOON. No, sir; it can not be used. We cleared up a portion of it, but it is not a continuous road. You can just see the traces of the old Spanish road.

Senator MORGAN. I now call your attention to various applications that have been made addressed to the Isthmian Canal Commission by different oil companies for the purpose of getting concessions or rights for carrying pipe lines through the Zone.

The first one is July 10, 1905, dated at general office, Beaumont, Tex., from the Higgins Oil and Fuel Company, and addressed to the Isthmian Canal Commission. I need not read it. I will insert all of these applications in the record.

The next one that I offer is a letter from W. Leon Pepperman, assistant chief, addressed to C. L. Wallis, general manager Higgins Oil and Fuel Company, Beaumont, Tex., dated July 7, 1905.

The next one is a letter to Mr. Wallace, chief engineer Panama Canal Commission, from C. L. Wallis, general manager Higgins Oil and Fuel Company, Beaumont, Tex., June 19, 1905.

The next one is from G. R. Nutty, general sales manager of the Gulf Refining Company, Pittsburg, Pa., dated June 9, 1905, and addressed to Theodore P. Shonts, Charles A. Magoon, and J. F. Wallace, executive committee, Isthmian Canal Commission.

The next one is from the Texas Company, New York, dated May 23, 1905, and addressed to T. P. Shonts, chairman Isthmian Canal Commission, Washington, D. C., and signed "The Texas Company, by J. S. Cullinan, president."

The next one is dated September 21, 1906, addressed to T. P. Shonts, esq., chairman of the Isthmian Canal Commission, Washington, D. C., and that is from the Texas Company, signed "J. S. Cullinan, president."

Another, dated New York, September 21, 1905, is addressed to T. P. Shonts, esq., chairman Isthmian Canal Commission, Washington, D. C., signed by the Texas Company, by J. S. Cullinan, president.

The next one is dated October 20, 1904, addressed to Admiral Walker, chairman Isthmian Canal Commission, Washington, D. C., from Lindon W. Bates.

Mr. MAGOON. Does that relate to oil—the one from Bates?

Senator MORGAN. Yes; "oil-fuel pipe line." Mr. Bates is the same engineer who presented this map here, is he not?

Mr. MAGOON. I presume so; yes, sir.

Senator MORGAN. The next one is also from Mr. Bates, dated October 22, 1904, addressed to Admiral Walker, president of the Isthmian Canal Commission, Washington, D. C.

(The above-mentioned papers are printed in full at the end of to-day's proceedings.)

Senator MORGAN. Have any of these papers been brought to your attention as a Commissioner at any time?

Mr. MAGOON. I do not recall that they have ever been brought to my attention as a Commissioner. I sailed for the Isthmus on the 17th of May, 1905, and remained there until I came back this time. The matter of oil for fuel, or for the use of the engineering and construction department, would probably be presented to and considered by Mr. Shonts at the present time, as the head of that department, or by Mr. Wallace, while Mr. Wallace was a Commissioner.

Senator MORGAN. Mr. Wallace, while he was chief engineer, or Mr. Shonts, while he was general manager or superintendent, would not have the power, I suppose, under any law of the Isthmian Canal

Commission or of the United States, to grant a concession for a pipe line within the Canal Zone just of his own judgment and by virtue of his office?

Mr. MAGOON. No; I should think not; but the question of the use of oil in that work would be considered by Mr. Shonts and the chief enigneer, and it would eventually be submitted to the Commission, because it would involve expense.

Senator MORGAN. The use of oil as fuel?

Mr. MAGOON. Yes, sir; to take the place of coal. As I understand it, that is one of the principal things that is sought to be accomplished by those companies who want to put a pipe line there. It is to supply the construction department with fuel.

Senator MORGAN. I will ask you, though I do not suppose you are prepared to answer the question just on the moment, and perhaps you will have to look at it a little bit, as to whether, under the Spooner law, the Commission would not be required to pass as a Commission upon any such concession as is claimed here, or as is asked for here in these letters. These are all requests, you know, for concessions for establishing oil pipe lines. Would not that subject come under the jurisdiction of the Commission instead of any one of its members or any other person? That is the question. If you do not feel disposed to answer it at the moment, very well.

Mr. MAGOON. I would ask to consider that question a little.

Senator MORGAN. Yes. I will now offer some correspondence on this subject, passing between Senator McCumber and Mr. Shonts (and I will say here that I did not get these papers from Senator McCumber) on the subject of the applications that have been made for pipe-line concessions. I had better read these letters as I proceed. The letter of Mr. Shonts to Mr. McCumber is as follows:

ISTHMIAN CANAL AFFAIRS,  
OFFICE OF ADMINISTRATION, PANAMA CANAL BUILDING,  
*Washington, D. C., January 4, 1906.*

MY DEAR SIR: I beg to acknowledge receipt of your letter of January 3, requesting certain information in the matter of an oil pipe line across the Isthmus of Panama.

In reply you are respectfully informed that this is a matter now in the hands of the Secretary of War, and I therefore have referred your inquiry to him.

Very respectfully,

T. P. SHONTS, *Chairman.*

HON. P. J. McCUMBER,  
*United States Senator, Washington, D. C.*

Then comes a letter from Mr. Shonts to Mr. McCumber, dated January 23, as follows:

ISTHMIAN CANAL AFFAIRS,  
*January 23, 1906.*

SIR: By reference from the Secretary of War I have the honor to acknowledge the receipt of your letter of the 18th instant, requesting copies of the proposals that were made by the various companies relative to supplying oil or constructing pipe lines on the Canal Zone.

In reply there are inclosed herewith copies of the applications of the following individuals and companies:

1. The Texas Company, New York, N. Y., comprising—
  - (a) Application, dated May 23, 1905 (600).
  - (b) Application for surface use of property for erection of station, dated September 21, 1905 (600-2).
  - (c) Letter from Texas Company to Mr. Shonts, dated September 21, 1905 (600-3).
2. The Gulf Refining Company, Pittsburg, Pa., comprising (a) application, dated June 9, 1905 (388-17).
3. Higgins Oil and Fuel Company, Beaumont, Tex., comprising—
  - (a) Application, dated June 19, 1905 (388-14).
  - (b) Letter from Mr. Pepperman to C. L. Wallis, general manager of company, dated July 7, 1905 (388-14).
  - (c) Letter from Mr. Wallis to Commission, dated July 15, 1905 (388-16).
4. Lindon W. Bates, New York, N. Y., comprising—
  - (a) Letter from Mr. Bates to Admiral Walker, dated October 20, 1904 (388-8).
  - (b) Letter from Mr. Bates to Admiral Walker, dated October 22, 1904, transmitting brief digest of project (388-8).
  - (c) Digest referred to above (388-8).

There is only one copy on file of the blueprint accompanying this digest, but it is thought possible that you will not need a copy of it. Should you, however, desire to inspect the copy on file, and will so indicate, this office will be glad to loan it to you for that purpose.

The Associated Oil Company, of California, has never submitted any formal written proposal.

I also inclose herewith copy of the revocable license (1082-1) granted the Union Oil Company, of California. You have already been furnished with a copy of this company's application.

Very respectfully,

T. P. SHONTS, *Chairman.*

Hon. P. J. McCUMBER,  
*United States Senate, Washington, D. C.*

Accompanying these papers is one, signed by Mr. Shonts as chairman, which purports to be a memorandum for the Secretary of War, in which he says:

[Memorandum for the Secretary of War.]

ISTHMIAN CANAL AFFAIRS,  
*December 6, 1905.*

With reference to the request of the Union Oil Company, of California, for a franchise to construct a pipe line across the Isthmus, and following up our conversation of Monday, I find that the following-named individuals and corporations have from time to time addressed the Commission on this general subject: Union Oil Company, California; Lindon W. Bates, New York; The Texas Company, Texas; Associated Oil Company, California; Gulf Refining Company, Pittsburg; Higgins Oil and Fuel Company, Beaumont, Tex.



The foregoing companies, while not in every instance expressly so stating, have as an underlying motive or desire to furnish to the Commission oil for fuel, but do not make specific proposals setting forth the price at which they would agree to deliver oil.

There is a consensus of opinion that the equivalent of oil for fuel, as compared with coal, is 90 cents per barrel to \$4 per ton. We have been paying approximately \$4 for Pocahontas coal delivered on the Isthmus, although the last contract for coal was with the Fairmont people, at \$3.70 per ton. This Fairmont coal at \$3.70 has been thoroughly tested out and found to be no cheaper and, if anything, less desirable than Pocahontas at \$4.

At the ratio above set forth, the only economy in the use of oil would be cheaper cost of handling between points on the Isthmus. It would cost approximately \$350 to convert each locomotive into an oil burner, and Chief Engineer Stevens states that it would be a troublesome matter to educate the class of firemen on which we are dependent to the use of oil (as they have now been taught to fire with coal); furthermore, in derailments, which are inevitable, it would involve additional danger.

With the present data and information, the Commission is not inclined, therefore, to substitute oil for coal as fuel.

The Union Company, however, on a later date (November 28), submitted copy of a concession secured from the Panaman Government authorizing them to lay a pipe line from Chiriqui across to Bocas del Toro, with privilege also of laying a similar line from Panama to Colon, subject to the approval of the officials of the Government of the Canal Zone, through which it would have to pass. They state that they have purchased tank steamers, and it is their plan to transport oil to the Pacific terminus, pipe the same across the Isthmus to their steamers, for delivery on the Atlantic coast of the United States and elsewhere. They offer as an inducement to the Commission for granting this franchise to cross the Zone, that they will agree to sell oil to the Commission, or to any future contractor at 90 cents per barrel. They do not, however, make as a condition precedent that the Commission shall purchase its oil; but state their primary object is to secure a pipe line across the Isthmus for transportation purposes.

In so far as the utilization of oil from the Union Company at 90 cents is concerned, the views of the Commission are set forth in a foregoing part of this memorandum.

With reference to the granting of this franchise to the Union Company for through transportation purposes, to my mind there are two dominant objections which present themselves at this time:

1. To grant it to the Union people would be an exclusive concession, contrary to policy, when others are undoubtedly anxious to secure the same privilege.

2. There is considerable talk about changing the Atlantic terminus of the canal, which, if done, would result in the practical ultimate abandonment of Colon as a transportation terminal.

It might be added that as a railroad business proposition pure and simple, the granting of a pipe-line concession might in effect take away business from the Panama Railroad, and in future from the Panama Canal.

T. P. SHONTS, *Chairman.*

The next letter which I will read is from Secretary Taft to Mr. Shonts, and is dated December 29, 1905:

WAR DEPARTMENT,  
*Washington, December 29, 1905.*

MY DEAR MR. SHONTS: With reference to the application of the Union Oil Company to put a pipe line across the Isthmus, through the Zone, I have submitted the whole matter to the President and the Cabinet, and the President, upon the advice of the Cabinet, has concluded that it would be wise to grant a clearly revocable license to the oil company, at a compensation of \$500 a month; this to cover the right of way through property belonging to and under the control of the Canal Commission. Of course, with reference to the property owned by private citizens along the way, the licensee will have to make his own terms. My impression is that our license might properly include the license of the railway company as well. I am anxious, however, of course, that such a concession as this shall not in any way interfere with the convenience of the Canal Commission and the railway company in the great works of construction which they have under way. Will you kindly, therefore, confer with Chief Engineer Stevens, and obtain from him a statement of such limitations or restrictions as may be necessary to secure the result I have stated? Perhaps it would be wiser for you to send Stevens to me, and I can confer with him directly as to these limitations which ought to enter into the license which the President has directed me to draw and submit to him. You will observe that this license is not exclusive—we could not make it so even if we wished to, as we do not—and that it will end whenever the interests of the Government require it to end. The Union Oil Company, or any other licensee, if other licenses are granted, in building its line must take the risk of being invited to leave at any time. The money which will result from this license will be used for the public schools of the Isthmus.

Very respectfully, yours,

WM. H. TAFT,  
*Secretary of War.*

HON. T. P. SHONTS,  
*Chairman Isthmian Canal Commission,  
Washington, D. C.*

MR. MAGOON. Mr. Stevens was in Washington at the date of that letter.

Senator MORGAN. Yes.

Here is a letter signed by W. H. Taft, which is not addressed to any particular person, though evidently it was sent to a particular person, dated January 6, 1906:

WAR DEPARTMENT,  
*Washington, January 6, 1906.*

MY DEAR ———: I have your letter, in which you ask me to furnish you with the names of the persons who are applying for an oil pipe line concession across the Isthmus of Panama. I inclose herewith a copy of the application made by the manager of the Union Oil Company, which I first submitted to Mr. Shonts, the chairman of the Canal Commission, and received from him the memorandum inclosed in respect to the subject, and then I presented the matter to the Presi-

dent in Cabinet, where it was discussed. It was decided by the President that it would be well to grant a revocable license, under which the pipe line should be situated as the chief engineer should direct, and should be subject to removal from place to place in accordance with his request, and that the whole line should be subject to removal at any time when in the interest of the Government, the Canal Commission, or the railroad company it seemed wise; also on condition that the Union Oil Company paid for the privilege of going through Canal Commission and railroad company land and crossing the Zone the sum of \$500 a month.

I communicated this to Mr. Shonts in a letter, which is attached hereto, and to the representative of the Union Oil Company. I delayed drafting the revocable license, which is to be submitted for the signature and approval of the President, in order that I might confer with Chief Engineer Stevens. I have since conferred with him, and he thinks that the pipe line may be laid in such a way as to not in any way interfere with the work, and that it is quite probable that after the line has been established the use of oil at the price named may be found to be economical. The revocable license, as explained in my letter to Mr. Shonts, is not exclusive. Any other company will be permitted to lay its pipe line across the Isthmus under similar terms and conditions. An examination into the suggestion that such a license might interfere with the business of the railroad company shows that the consideration is not a weighty one. The transportation of oil on the railroad is in casks from the Atlantic to the Pacific side, and the transportation here contemplated is that of crude oil from the Pacific to the Atlantic side. Should it happen in the future that there was any interference with the business of the railroad company the Canal Commission would have full power under the proposed license to require the removal of the pipe line. The granting of the license seemed to be in the interest of the Pacific coast and to facilitate the carriage of crude oil from the oil fields of California to refineries on the eastern coast, and, therefore, to be an enterprise that ought to be encouraged.

The correspondence to which I have referred is inclosed.

Mr. Shonts answers your query with respect to coal.

Very sincerely, yours,

WILLIAM H. TAFT.

To ————.

I do not know to whom that is addressed.

Then, here is a letter from John Baker, jr., manager of the Union Oil Company, of California, addressed to Hon. William H. Taft, and dated Washington, December 4, 1905.

THE NEW WILLARD,  
Washington, D. C., December 4, 1905.

Hon. WM. H. TAFT,

Secretary of War, Washington, D. C.:

DEAR SIR: In the very limited interview which you were able to accord me on the 1st instant, at which time I presented to you the request of the Union Oil Company, of California, for permission to construct and operate a pipe line across the Isthmus of Panama through the Canal Zone, I was unable to acquaint you with certain

features of the proposition which are of national importance. Permit me, please, to do so herein.

The Union Oil Company, of California, is anticipating by this undertaking the principal purpose for which the Isthmian Canal is being constructed.

The carrying out of its plans to deliver California oil in the markets of the world will result in a vast increase in American commerce. The business already assured the company will necessitate its building a fleet of tank steamers and vessels in American shipyards. Having learned of opposition to its plans by competitors and realizing that every possible effort will be made to retard its efforts to reach the oil markets of the world, and also having in view the delay which would be necessitated by building steamers and vessels, the company last month purchased all the American tank steamers which were not owned by its competitors, viz: *Lansing*, *Roma*, *Washtenaw*, and *Argyll*. The *Lansing* is the largest and fastest American tank steamer afloat. The acquisition of these steamers places the company in the position of having as much, in the point of capacity, American oil tank steamer transportation as any other oil company in the United States. These steamers, however, represent but a small portion of the fleet the company will have to provide to carry out its plans.

During this year the Union Oil Company has been offered a market for large quantities of its oil on long term contracts in some of the principal Atlantic coast ports of the United States and also in England. The great cost of transportation via the long route around Cape Horn or the Straits of Magellan operated against the acceptance of this business. Via the much shorter and cheaper route across the Isthmus of Panama by means of a pipe line, pending the opening of the Panama Canal, California oil can be profitably marketed in competition with other oil in Atlantic coast ports of the United States and in Europe.

In order to meet the demands above referred to for its oil and to generally extend its business, the Union Oil Company decided to institute a transisthmian route, to enable it to reach the Atlantic seaboard and European markets. To this end, it applied to and received from the Republic of Panama a concession granting to the company the right to construct and operate a pipe line from Pacific ports of that Republic to ports on the Atlantic side. A translated copy of this concession has been furnished you.

A perusal of this document will show that the company can install its terminal plants and pipe line in strictly Panama territory. The route the company would adopt would be the Government road across the Province of Chiriqui, from the Port of David, on the Pacific coast, to Bocas del Toro, on the Atlantic coast, a route practically parallel with the canal, but about 200 miles farther north.

The other route, to the use of which the consent of the isthmian canal officials is necessary, is through the Canal Zone. Of the two routes the company frankly admits its preference of the Zone route, for the following reasons:

First. It is about 20 miles shorter than the Chiriqui route and does not require the maintenance of intermediate pumping stations, which would be necessary at Chiriqui.

Second. The existence of the Panama Railroad would greatly facilitate the distribution of the 4,000 tons of pipe along the route through the Zone, as against wagon distribution over the Chiriqui road.

Third. In the Zone the company's property would mostly be under the jurisdiction of the United States.

Because of these advantages of the Zone route the company asks permission to lay its pipe line there, and in consideration for such permission gives the United States or its agents the privilege, if desired, of obtaining fuel oil at an exceptionally low rate, which would mean a saving of at least 25 per cent over coal.

Respecting the question whether oil will or will not be used in place of coal in the work on the canal, that is a matter quite apart from the purpose of the company's request to you, which is, to enable it to get its oil from the Pacific to the Atlantic Ocean. But, as the use of oil for fuel has wherever tried shown such a great saving over coal—in cost as well as labor—it is more than probable that it will ultimately be used at Panama.

Therefore it seems obviously to the advantage of the United States Government in its work on the canal to have this pipe line and oil supply paralleling the whole line of the work. Such a plant provides transportation for delivering the oil at any point required at a very low rate for a long term of years, obviates expense to the United States for tanks and railroad transportation, provides a supply of fuel oil at the terminal ports of the canal for use by naval vessels of the United States, if desired, and the pipe line will in no way interfere with canal or railroad construction. All this without the United States Government being obligated in any way to purchase oil from or deal with this company in preference to any other.

A brief statement respecting the company and its affairs may not be amiss.

The Union Oil Company of California is the oldest (established over twenty years ago) and largest oil company on the Pacific coast. It owns and controls 172,000 acres of oil-producing land in California; has extensive systems of pipe lines connecting its oil fields with three seaports; operates two large refineries; maintains over 40 distributing stations, and owns and operates between California and the Hawaiian Islands and ports on the northwest coast a fleet of American tank steamers and barges. The company's supply of crude or fuel oil is believed to be the largest in the world.

During the twenty years and more that the company has been in the oil business, it has expended over \$12,000,000, and its present plans contemplate and it is prepared to invest \$12,000,000 more, the greater portion of which will be expended in transportation facilities to enable the company to reach distant domestic and foreign markets. This means business for American shipyards and the development of American trade in foreign lands. For many years it has been the policy of the company to enter into long-time contracts with consumers at fixed prices. This it has been justified in doing because of its large holdings of oil territory, and it has proven mutually beneficial to the consumers and the company, as the former are warranted in investing the money required for converting their plants to burn oil and the company is justified in providing the facilities necessary for

supplying the business, as it is practically assured interest on its investment.

The shares of the company are largely held by the representative business men of California; there are also many shareholders throughout the East—quite a large number being residents of New Jersey.

The company owns every branch of the oil business, including more proven territory than any other oil company in the world. Its position, as owner, together with its policy of making long-time contracts, has been the basis of its success.

The dry season has now begun on the Isthmus and the company desires to take immediate advantage of this condition to more quickly construct its pipe line and terminal facilities. While the company would exceedingly regret a refusal of its application for permission to traverse the Canal Zone, such refusal would, for reasons given above, force it to immediately begin constructing its pipe line via the Chiriqui route. Once established there—200 miles north of the Canal Zone—the pipe line never could be utilized for supplying oil along the route of the Canal, should oil at any time be desired there, and the company would not feel warranted in establishing another half-million-dollar pipe line plant in the Canal Zone, nor could it name so low a rate for oil as it has in its formal application of November 28.

Very respectfully,

JNO. BAKER, jr.,

*Manager Union Oil Company of California.*

Governor, will you be good enough to show me that direction or instruction of the President of the United States in regard to making contracts for purchase of material or anything else connected with the canal? Have you a copy of it?

Governor MAGOON. You mean the provision of the Spooner Act that the President is authorized to make any and all contracts which may be required by the work?

Senator MORGAN. Through the Commission.

Mr. MAGOON. Yes. It gives the authority to the President.

Senator MORGAN. To do it through the Commission.

Mr. MAGOON. The act provides that he shall act through a commission, but I think that special provision is general in its terms.

Senator MORGAN. I want to get the instructions of the President in regard to the making of contracts given to the Isthmian Canal Commission. You have that here, I think. Is it not in Document No. 127?

Mr. MAGOON. I have never seen it in this publication. Are you at all familiar with the location of the papers in this document?

Senator MORGAN. No; I am not.

The CHAIRMAN. There is no index in this volume, I think.

Senator MORGAN. Mr. Chairman, we will get that paper. That has been used here several times, has it not—the document containing the instructions given to the Commission?

Mr. MAGOON. I think I have found here what you want. You mean as regards advertising?

Senator MORGAN. Yes.

Mr. MAGOON. This is it, then. It is in the letter of the President dated April 1, 1905.

Senator MORGAN. To the Commission?

Mr. MAGOON. Yes. Shall I read that?

Senator MORGAN. Please.

Mr. MAGOON. I read from page 3 of the Senate Document 127, Fifty-ninth Congress, first session:

" CONTRACT.

" Contracts for the purchase of supplies or for construction involving an estimated expenditure exceeding ten thousand dollars shall only be made after due public advertisement in newspapers of general circulation, and shall be awarded to the lowest responsible bidder, except in case of emergency, when, with the approval of the Secretary of War, advertising may be dispensed with. In the making of contracts for supplies or construction involving an estimated expenditure of more than one thousand dollars or less than ten thousand dollars competitive bids should be secured by invitation or advertisement whenever practicable."

Senator MORGAN. The point I wanted to ask you about is this: Within your knowledge, has the Commission ever asked for competitive bids for the establishment of oil pipe lines across the Isthmus?

Mr. MAGOON. Not that I know of, Senator. That would be a private—

Senator MORGAN. Could such a thing have occurred without your knowing it?

Mr. MAGOON. It might, yes; on account of my absence on the Isthmus.

Senator MORGAN. You have never heard of any such advertisement or notice in regard to construction of pipe lines across the Isthmus?

Mr. MAGOON. No, sir. All that I have ever heard of were contemplated expenditures of private funds, not of the funds of the United States.

Senator MORGAN. And you have not heard of these applications?

Mr. MAGOON. Yes, sir; I have heard of them.

Senator MORGAN. You have heard of these applications for privileges of putting in pipe lines?

Mr. MAGOON. Yes, sir. I would like to call attention to the fact that with the exception of some that were received before I was a Commissioner they have all been received subsequent to my leaving the United States for the Isthmus.

Senator MORGAN. I will read an order of the President, dated January 10, 1906:

" The President of the United States, upon the recommendation of the Secretary of War, hereby grants to the Union Oil Company, of California, a revocable license to construct, operate, and maintain a pipe line and appurtenances for the transmission and delivery of oil over and across the lands owned by the United States or by the Panama Railroad Company—a company in which the United States is the owner of all the shares of capital stock—and across the territory now controlled by the Government of the United States known as the Canal Zone, in the Isthmus of Panama.

" The meaning of this revocable license is that, with respect to the lands which are owned either by the Government of the United States or the railroad company, authority for such pipe line across such lands is hereby given. With respect to lands owned by private persons in the Canal Zone said Union Oil Company must also obtain

permission from the owners thereof before constructing the pipe line through their lands. This license is intended only to give the revocable right to occupy lands which are the property of the United States and the railroad company with such a pipe, and to extend to the Union Oil Company the revocable right to apply to private owners of the other lands necessary to construct the pipe line, and after having secured their permission, to maintain a continuous pipe line across the Canal Zone during the continuance of this license.

"But said revocable license is granted on the following express conditions:

"First. That at any time the chief engineer of the Canal Commission may by notice require the removal of the pipe line, not only from the lands owned by the United States and the railroad company, but from the Canal Zone entirely.

"Second. That the pipe line is to be constructed by the said company in a suitable location to be designated by said chief engineer.

"Third. That any change or changes in the location of said pipe line that may from time to time be thought necessary by said chief engineer shall be made by said company promptly at its own expense.

"Fourth. That the said pipe line shall be constructed and in operation on or before the 1st of August, 1906.

"Fifth. That after the pipe line is constructed and ready for the flowing of oil the Union Oil Company shall pay into the treasury of the Canal Zone the sum of \$500 a month, in money of the United States, for the support of the public schools of the Canal Zone, on the first of each and every month in advance. Should the line be constructed before the 1st of August, then the monthly payments are to be made from the time that oil begins to flow in the pipe, at the monthly rate before stated. Should this license be revoked, the revocation to take effect at any time after the 1st of the month, there shall be a payment to the Union Oil Company of the rental for the part of the month remaining after the revocation of the license.

"This revocable license is granted on the further condition that oil shall be furnished, at any convenient point to be selected by the chief engineer of the Canal Commission along the line of the pipe line in the Zone, to the railroad company or the Canal Commission at the rate of 90 cents (\$0.90) a barrel for the crude oil, if either the Canal Commission or the railroad company desires it.

"It is distinctly understood that this is not an exclusive privilege granted to the Union Oil Company, and that the President reserves the right to grant other such revocable licenses as it may seem proper and in the public interest.

"As the railroad company exists under a charter as a New York corporation, and is under the technical control of the President and board of directors, this revocable license should be accompanied by a revocable license from the railroad company concurring in the grant of this revocable license upon the terms and conditions herein stated, in order that the revocable right to enter upon the lands of the railroad company for the construction and maintenance of the pipe line may be made technically complete.

"THEODORE ROOSEVELT.

By the President:

"WM. H. TAFT, *Secretary of War.*

"JANUARY 10, 1906."



If that matter was ever submitted to the Commission you have no knowledge of it?

Mr. MAGOON. No, sir.

Senator MORGAN. Do the records of the Commission show that this contract was ever made?

Mr. MAGOON. I do not know.

Senator MORGAN. Have you ever known anything as to whether it has been revoked?

Mr. MAGOON. No, sir.

Senator MORGAN. Have you heard anything?

Mr. MAGOON. You see, this was January 10, 1906, and, as I say, those are the papers which passed me when I was en route from the Isthmus up here.

Senator MORGAN. At that time was the Commission in session here—January, 1906?

Mr. MAGOON. I do not recall. I do not know as to that.

Senator MORGAN. They were in frequent session?

Mr. MAGOON. There was a quorum here, you know. They were all here with the exception of myself.

Senator MORGAN. The Commission had frequent sessions in the latter part of the year 1905 and the early part of the year 1906?

Mr. MAGOON. Yes, sir. Mr. Stevens was here, and they were in conference with him.

Senator MORGAN. And they transacted a great deal of business?

Mr. MAGOON. I think so.

Senator MORGAN. I suppose you know what the business is that they transacted here from the records of the Commission?

Mr. MAGOON. Oh, yes; it will come to me. That passed me en route.

Senator MORGAN. Have you ever seen on the records of the Commission any allusion to this pipe-line business?

Mr. MAGOON. I have not seen the records yet, Senator, so that I have not seen the record of this, if it is there. I could not say anything at all about it.

Senator MORGAN. You have access to the records here, have you not, now?

Mr. MAGOON. Yes, sir.

Senator MORGAN. Will you be good enough to examine them; and if you find that there is an order of the Commission relating to this subject will you inform the chairman of this committee and give a copy of the order?

Mr. MAGOON. I will. Or would it suit your convenience as well—because it would suit my convenience a little better—for the chairman of the committee to call on the Commission for it?

Senator MORGAN. You are one of the Commissioners, and I wanted to know whether you had any knowledge of this transaction.

Mr. MAGOON. I will attend to that, then.

The CHAIRMAN. My attention was diverted for a moment. What was that request?

Mr. MAGOON. The Senator asked me to examine the record.

The CHAIRMAN. You will do it without a request on my part?

Mr. MAGOON. Yes; if that is what is desired. However, I suggested that the committee call on the chairman of the Commission to furnish any record or a copy of any record of the Commission relat-

ing to this subject. It would save me the trouble of attending to it personally. But if the Senator wishes it, I will attend to it personally.

Senator MORGAN. Where are the original records of the Commission kept; here or at the Isthmus?

Mr. MAGOON. Here. That is, for the work of this office, and on the Isthmus for the work of my department and of the work of the chief engineer. I should say that the records of the proceedings in the Commissioners' meetings are in Washington.

Senator MORGAN. If I wanted to find out what had been done by the Commission in Panama, would I go to the office here to get it?

Mr. MAGOON. Yes, sir.

Senator MORGAN. It would all be sent here and copied in the books?

Mr. MAGOON. Yes, sir.

Senator MORGAN. So that we have it all here?

Mr. MAGOON. Yes, sir.

Senator MORGAN. Do you know anything about the composition of this Union Oil Company—who are the members and the controlling people in it?

Mr. MAGOON. I do not. I have not the slightest idea. All I know about that company is that I remember that two gentlemen called in Washington on the Commission and stated their desire to do that; but what their names were I have no idea. I had never seen them before, and I do not recall ever seeing either of them since.

Senator MORGAN. They called on the Commission here in Washington?

Mr. MAGOON. Yes, sir. They called at the Commission offices.

Senator MORGAN. Did anybody accompany them?

Mr. MAGOON. I do not think they did.

Senator MORGAN. Well, it will come out later. You have no knowledge of any bidding being called for by advertisement in regard to the establishment of a pipe line across the Isthmus?

Mr. MAGOON. I have not, and I do not suppose there was any—any more than if some man came down there and wanted to build a house out of his own money. They would not advertise for that. None of the Commission's money is involved in it.

Senator MORGAN. The Commission's property is involved.

Mr. MAGOON. Well, we are leasing land down there to people to erect structures on and engage in agricultural pursuits.

Senator MORGAN. You say they are doing that?

Mr. MAGOON. Yes, sir.

Senator MORGAN. Can you point out any authority of law for that leasing?

Mr. MAGOON. Yes; the act of Congress of 1885, I think it is. I would not be certain of that date, but I can get it for you. That act confers upon the Secretary of War the authority to lease property of the United States which is within his custody for which the United States does not have immediate use.

Senator MORGAN. To lease from others?

Mr. MAGOON. No; to lease to others; to lease the property of the United States, or to issue revocable licenses.

Senator MORGAN. To lease property "for which the Government has no use;" is that the way you stated it?

Mr. MAGOON. Yes; property that the Government is not utilizing, or for which the Government has no immediate use.

Senator MORGAN. That was in 1885?

Mr. MAGOON. I think that is the date of it. I am familiar with its existence, and the leases that are issued on the property on the Zone recite the statute.

Senator MORGAN. That was before we had any interest in the canal there, was it not?

Mr. MAGOON. Oh, yes, sir.

Senator MORGAN. Or the railroad?

Mr. MAGOON. Yes.

Senator MORGAN. But that is a statute to which you refer when you want to make a lease of lands to anybody in the Zone?

Mr. MAGOON. Yes, sir. You see when we took over the French property on the Isthmus there were hundreds of little leaseholds where men had built houses and were cultivating the land, and the question came up as to what we should do with them, and that statute was one that was entirely familiar to all of us in the War Department, and was thought ample to confer the authority to continue those leaseholds or to grant new ones. The proceeds, of course, are converted into the Treasury of the United States.

Senator MORGAN. You would not think that because the French Company had created leases down there, or leasehold estates, that it would necessarily follow from that statute that you had the right to create others?

Mr. MAGOON. The fact that the French had created leaseholds would not confer any authority, but the existence of the statute, I think, confers the authority.

Senator MORGAN. I believe I will not ask the governor any further questions about this.

Senator TALIAFERRO. Are you a member of the railroad directory, Governor Magoon?

Mr. MAGOON. Yes, sir; I am elected a member of it, and have attended one meeting.

Senator TALIAFERRO. Were you a member of the board when 620 bonds of the railway company were sold?

Mr. MAGOON. I was a member of it, yes, sir; but I did not attend the meeting, if that is what you mean. The directors of that company meet in New York, and, as I say, I have been on the Isthmus. I think I might explain that I was elected because all of the Commission were put on, but more especially in order that I could be put on the executive committee of that board of directors. My being a member of that board, and Mr. Wallace being also a member, made it possible for a majority of the executive committee of the railroad (consisting of five members) to be on the Isthmus at the time when Mr. Shonts would be there. Mr. Wallace and I being on that committee, the presence of Mr. Shonts would give us a majority on the Isthmus and we could occasionally transact business there.

Senator TALIAFERRO. Or the presence of Mr. Shonts here would make a majority here?

Mr. MAGOON. Yes, sir.

Senator TALIAFERRO. Where was that action taken authorizing the sale of those bonds?

Mr. MAGOON. In New York

Senator TALIAFERRO. You were not present?

Mr. MAGOON. I was not.

Senator TALIAFERRO. You are not familiar with the circumstances?

Mr. MAGOON. Not at all. All I know of that transaction is what I read in the publication which you have before you, Senator, known as Document 127.

Senator TALIAFERRO. I will not pursue the matter, then, with you.

Mr. MAGOON. There is one matter which I would like to mention. I wish to refer to the testimony of Mr. Wallace at pages 508 and 509 of the record. Referring to the fact that the Young Men's Christian Association building, authorized by the old Commission, had not yet been erected, Mr. Wallace said [reading from the record, p. 508]:

"Where the influence came from to stop, that is a matter that I am not positive about, but from some official source the intimation was made to me that it was not desired that we should go ahead with that matter at all, and the carrying out of that plan came to a standstill.

"Senator KITTREDGE. When was that?

"Mr. WALLACE. That was in this last spring, after I went on the executive committee—this last spring, 1905, just a few weeks before I left there. At that time we had even plans made for the construction of these buildings.

"Senator HOPKINS. You say an intimation came to you 'from some official source.' What do you mean by that?

"Mr. WALLACE. I mean to say that after I got on the executive committee it was intimated to me that it was not the desire of the authorities that we should encourage or go ahead with that, and the plans along that line were stopped.

"Senator KNOX. Who intimated that to you?

"Mr. WALLACE. The intimation came to me, I think, from Governor Magoon. He intimated that the Secretary did not care to have us go ahead with it, and that we had better drop it.

"Senator KNOX. Is that what he said?

"Mr. WALLACE. That is what he said, as I recollect it.

"Senator HOPKINS. You say the Secretary; you mean the Secretary of War?

"Mr. WALLACE. Yes, sir.

"Senator KNOX. Governor Magoon said that the Secretary did not want it?

"Mr. WALLACE. Yes, sir. It came up informally. We were in the committee room, the governor and myself, and I said: 'I presume that there is no objection to our going ahead with this Young Men's Christian Association.'

"Senator KNOX. Yes.

"Mr. WALLACE. And he just said, informally: 'We will have to drop that. The Secretary does not want us to do anything with it.'

"Senator HOPKINS. Did he give any reason why?

"Mr. WALLACE. Not particularly; no. I think I understood what was the reason for it, but that was a mere supposition.

"Senator KNOX. What did you suppose the reason was?

"Mr. WALLACE. That was a Catholic community there, and I think it was objectionable to them; but a large majority of our white men were Protestants."

The CHAIRMAN. That will be put in the record here, then.  
(The statement referred to is as follows:)

*Department of government and sanitation—Week ending December 30, 1905.*

[illegible]

Department of government and sanitation—Week ending December 30, 1905—Continued.

Station.	Salaried.		Laborers.			Carpenters.			Masons.			Painters.			Engineers, 50 cents.	Machinists, 40 cents.	Hourly, gold, 56 cents.	Total.
	Gold.	Silver.	14 cents.	20 cents.	26 cents.	32 cents.	40 cents.	50 cents.	32 cents.	40 cents.	50 cents.	32 cents.	40 cents.	50 cents.				
Taboga	5	9			8													22
Gorgona	6	4																10
Miraflores	17	28																48
Empire	2	1																8
Paraiso	1	1																2
Pedro Miguel	1	1																2
St. Tomas	1	1																1
La Boca	2	1																8
Tabernilla	1	1																1
Las Cascadas	3	1																4
Zone Station																		
Ancon		2	1	1	24				2		4							34
La Boca		9	1	15	14	1	1											41
Coroxal		7	2		43	1												58
Miraflores		1	1	8	9													19
Pedro Miguel		4	1	8	10													28
Paraiso	32	7	2	38	19		2	1										101
Cucaracha		1		10	9													20
Culebra		10	1	22	46	1	1											81
Empire		9	1	39	51	2												102
Las Cascadas		4		29	25													58
B. Obispo		5		10	6		1											22
Matachin		1	1	5	4													11
Gorgona		7	2		12													21
Tabernilla		1		6	4													11
Bohio		1		9	4													14
San Pablo		1		4	3													8
Gatun		1	1	6	4													12
Total	834	515	33	296	903	14	20	14	2	2	5	1	2	1	1	1	1	2,145

## RECAPITULATION.

Department.	Salaried.		Laborers.			Carpenters.			Masons.			Painters.			Engineers, 50 cents.	Machinists, 40 cents.	Hourly, gold, 56 cents.	Total.
	Gold.	Silver.	10 cents.	14 cents.	20 cents.	26 cents.	32 cents.	40 cents.	50 cents.	32 cents.	40 cents.	50 cents.	32 cents.	40 cents.	50 cents.			
Executive	47				12	4												68
Collector of revenue	46	10	1	1	3	9												70
Judiciary	7																	7
Prosecuting attorney	3																	3
Police	189																	189
Sanitary	334	515		33	296	903	14	20	14	2	2	5	1	2	1	1	1	2,145
Total	626	525	1	34	311	916	14	20	14	2	2	5	1	2	1	1	1	2,477

Employees paid in gold January 1, 1906.

## DEPARTMENT OF GOVERNMENT AND SANITATION.

Name.	Position.	Salary per year.
<i>Office of executive secretary.</i>		
Magoon, Charles E.	Governor	\$17,500.00
Adamson, George E.	Stenographer	1,500.00
Arbuckle, E. M.	Clerk	1,650.00
Baker, Charles H.	Private secretary to governor	2,000.00
Barrett, Jas. K.	Clerk	1,800.00
Baxter, John K.	Secretary Isthmian civil-service board	2,100.00
Campen, George L.	Water commissioner	2,500.00
Dual, J. W. Th.	Clerk	1,000.00
Davidson, Silas	Acting chief of correspondence division	1,800.00
Douglas, Gavin	Stenographer	1,500.00
Ewing, Homer L.	Clerk	1,200.00
Feld, Fred A.	Stenographer	1,500.00
Fried, Amos E.	do	1,500.00
Galindo, Inocencio	Legal adviser	4,000.00

*Employees paid in gold January 1, 1906—Continued.*

## DEPARTMENT OF GOVERNMENT AND SANITATION—Continued.

Name.	Position.	Salary per year.
<i>Office of executive secretary—Con.</i>		
Glaze, A. A.	Clerk	\$1,500.00
Gleason, John	Superintendent of administration building	1,200.00
Hale Edgar H.	Clerk	1,500.00
Hall, George	Watchman	800.00
Hatton, William W.	Clerk	1,650.00
Hayworth, George	do	2,000.00
Holmgren, Ole E.	Stenographer	1,500.00
Jiminez, Francisco	Clerk	1,500.00
Kelly, Burdette	do	1,200.00
Lane, Rufas A.	Assistant secretary	3,000.00
Levandeyra, J. de	Clerk	1,500.00
Ludwig, Emil	do	1,200.00
Lupfer, Cambridge M.	do	1,500.00
Martin, William A.	do	1,500.00
McGeachy, Wm. W.	Copyist	720.00
Ninas, George A.	Clerk	1,800.00
Ortega, B. I.	Copyist	1,000.00
Payne, Harry M.	Clerk	1,500.00
Pinckney, Victor H.	Chief clerk in charge of records	2,000.00
Preston, Merrit C.	Clerk	1,800.00
Price, Elmer E.	Accountant	1,500.00
Reed, Harry Day	Executive secretary	\$8.40
Reidy, J. J.	Plumber inspector	2,400.00
Roudabush, Robert M.	Accountant	1,500.00
Seelye, William F.	Clerk	1,500.00
Tragedorf, William E.	Stenographer	1,500.00
Venissat, Ferdinand	Watchman	600.00
Walker, John	do	600.00
Watts, Henry	Messenger	240.00
Weidman, C. E.	Chief of fire department	2,500.00
Wilson, Paul S.	Clerk	1,500.00
Wynne, Joseph	do	1,500.00
Young, Edmund S.	do	1,500.00

## REVENUES DEPARTMENT.

Baker, E. Lewis	Depnty collector of revenues	\$2,000.00
Bottenfield, F. M. Drake	Rodman	900.00
Buenaventura, Jorge M.	Translator	900.00
Cook, T. L.	Inspector of revenues	1,500.00
Cooke, T. M.	Collector of revenues	5,000.00
De Leon, S. R.	Inspector of revenues	1,200.00
Gudger, H. A.	Deputy collector	1,400.00
Kaniner, L. C.	Clerk	1,500.00
Leib-on, I. B.	Stenographer	1,500.00
McGown, Arthur	do	1,500.00
Martin, V. Kidgley	Clerk	1,500.00
O'Connor, D. C.	Superintendent of public schools	2,000.00
Orsini, L. P.	Land agent	1,800.00
Quijano, Julio	Bookkeeper	1,200.00
Reyter, John	Mail clerk	720.00
Sargent, E. V. St. V.	Clerk	1,500.00
Storia, J. L.	Stenographer	1,500.00
Williams, J. R.	Clerk	1,200.00
Yetter, H. P.	Land agent	1,200.00
<i>Land branch.</i>		
Davis, Chas.	Rodman	900.00
Gallindo, Mario	Clerk	1,200.00
Gambotti, Antoine	do	1,600.00
Hurd, W. G.	Levelman	1,500.00
Miller, A. M.	Surveyor	2,100.00
<i>Post-office branch.</i>		
Agree, James	Postmaster	1,500.00
Abello, M. D.	do	120.00
Bates, B. M.	do	900.00
Blies, G. D.	Postal clerk	1,200.00
Braden, R. J.	Postmaster	1,500.00
Branham, A. E.	do	1,800.00
Carrera, Pedro	do	90.00
Clapp, C. J.	Carpenter	¢.56

¢ Per hour.

*Employees paid in gold January 1, 1906—Continued.*

## REVENUES DEPARTMENT—Continued.

Name.	Position.	Salary per year.
Davis, F. F.	Postmaster.	\$1,500.00
Fechtig, E. M.	do	1,800.00
Fitzpatrick, E. D.	do	1,500.00
Frost, Mrs. J. M.	Clerk	1,200.00
Glaser, Albert	Postal clerk	1,000.00
McNish, W. J.	do	1,500.00
Manassa, P. H.	Deputy postmaster.	180.00
Mooney, C. L.	Postmaster.	1,000.00
Nixon, F. M.	Postal clerk	1,500.00
Northrup, Mrs. M. M.	Postmaster.	720.00
Schutt, Oscar.	do	1,500.00
Smith, W. J.	do	980.00
Speight, T. E.	do	1,500.00
Thorne, J. B.	do	90.00
Verdella, Miguel.	do	1,500.00
Warner, A. M.	do	1,200.00

## JUDICIARY DEPARTMENT.

Alfaro, Ricardo	Clerk	\$1,200.00
Arce, Martinus	Messenger	300.00
Collins, L. C.	Associate justice of supreme court	6,000.00
Duran, F. M.	Chief justice supreme court	6,500.00
Emery, Walter	Clerk of court.	2,000.00
Gudger, H. A.	Associate justice supreme court	6,000.00
Johnson, H. L.	Clerk of court	2,000.00

## PROSECUTING ATTORNEY'S OFFICE.

Dore, C. B.	Clerk	\$1,800.00
Jordan, H. R.	Stenographer	1,500.00
Keedy, J. M.	Prosecuting attorney	5,000.00

## POLICE DEPARTMENT.

Abrahams, Thomas	Second-class private	\$480.00
Allen, Chas.	Corporal	960.00
Alvarez, Felix	do	960.00
Anderson, C. E.	Second-class private	480.00
Anderson, G. S.	do	480.00
Angel, Laurence	First lieutenant	2,250.00
Appleton, J. T.	Second-class private	480.00
Arosemena, Urbano	do	480.00
Barber, C. E.	Probationary policeman	320.00
Beckford, J. E.	Second-class private	480.00
Benjamin, John	do	480.00
Betancourt, A. G.	First-class sergeant	1,200.00
Biggs, G. B.	Second-class private	480.00
Billings, Edward	do	480.00
Bolton, R. A.	do	480.00
Braham, W. J.	do	480.00
Bramwell, W. H.	do	480.00
Brooke, Henry	do	480.00
Brown, A. S.	Corporal	960.00
Brown, G. E.	Second-class private	480.00
Brown, I. D.	do	480.00
Brown, J. B.	do	480.00
Brown, J. H.	do	480.00
Buchanan, J. B.	do	480.00
Buckley, F. W.	do	480.00
Buckley, J. J.	do	480.00
Burke, H. S.	do	480.00
Burnett, J. S.	do	480.00
Burrows, George	do	480.00
Byfield, James	do	480.00
Carter, A. F.	Corporal	960.00
Castano, Modesto	Second-class private	480.00
Clark, O. M.	First-class private	900.00
Clarke, Henry	Second-class private	480.00
Cloyd, S. O.	Corporal	960.00

\*Including army pay of \$1,500 per year.



*Employees paid in gold January 1, 1906—Continued.*

## POLICE DEPARTMENT—Continued.

Name.	Position.	Salary per year.
Connor, H. E.	Second-class private.	\$480.00
Cooper, J. B.	First-class private.	900.00
Crawford, J. R.	Probationary policeman.	320.00
Crosdale, Adam	Second-class private.	480.00
Cuados, Leopoldo	do.	480.00
Dale, Duncan	do.	480.00
Da Silva, Jeremiah	do.	480.00
Daughters, J. K.	Clerk.	1,200.00
Davis, R. F.	First-class private.	900.00
De Tanerede, K. J. A.	do.	900.00
Donalds, Isaac	Second-class private.	480.00
Dooley, C. F.	Second-class sergeant.	1,000.00
Du Jardin, J. W.	First-class private.	900.00
Dunn, J. A.	Second-class private.	480.00
Dyce, Henry	do.	480.00
Evans, A. K.	Corporal.	960.00
Farquherson, J. H.	Second-class private.	480.00
Ferguson, J. A.	do.	480.00
Forde, J. E.	do.	480.00
Forrest, Nehemiah	do.	480.00
Foster, J. L.	do.	480.00
Foster, M. A.	do.	480.00
Francis, C. J.	do.	480.00
Frasco, W. H., Jr.	First-class private.	900.00
Fredericks, E. A.	Second-class private.	480.00
Garvey, Isaac	do.	480.00
Gayle, U. A.	do.	480.00
Gibbs, D. A.	Probationary policeman.	320.00
Gordon, George	Second-class private.	480.00
Goulding, J. S.	do.	480.00
Grant, T. S.	do.	480.00
Gray, D. A.	do.	480.00
Gray, J. A.	do.	480.00
Green, Alexander	do.	480.00
Green, G. S.	do.	480.00
Green, J. S.	do.	480.00
Gregory, Alex.	do.	480.00
Gregory, Chas.	do.	480.00
Hall, J. A.	do.	480.00
Hammond, H. J.	Probationary policeman.	320.00
Hanley, J. A.	Second-class private.	480.00
Harris, D. N.	Probationary policeman.	320.00
Harrison, E. S.	Second-class private.	480.00
Harvey, Alex.	do.	480.00
Henlin, F. W.	do.	480.00
Henry, A. M.	do.	480.00
Henry, E. A.	do.	480.00
Hinds, L. A.	do.	480.00
Hopkins, Joseph	do.	480.00
Hylton, Arnold J.	do.	480.00
Jackson, Edward	do.	480.00
Johnson, John.	do.	480.00
Johnson, Peter	First-class sergeant.	1,200.00
Johnson, T. A.	Second-class private.	480.00
Jones, S. Z.	do.	480.00
Jordan, W. M.	do.	480.00
Josephs, R. S.	do.	480.00
Kennedy, E. D.	do.	480.00
King, A. C.	First-class private.	900.00
Kitely, Joseph.	Second-class private.	480.00
Knight, D. L. W.	do.	480.00
Lake, E. R.	do.	480.00
Lalor, Patrick	Probationary policeman.	320.00
Lalor, Percy.	Second-class private.	480.00
Lee, S. T.	Record clerk.	1,500.00
Le Gall, A. H.	Second-class private.	480.00
Leonard, Edward	Clerk.	1,200.00
Leonhardes, E. A.	First-class private.	900.00
Levy, Jules.	do.	900.00
Lincoln, C. T.	do.	900.00
Lynch, J. J.	Second-class private.	480.00
Lyons, H. S.	do.	480.00
McCauley, F. P.	do.	480.00
McDonald, Adolphus.	do.	480.00
McDonald, D. E.	Chief clerk.	2,000.00
McFarlane, A. J.	Second-class private.	480.00
McFarlane, R. A.	do.	480.00
McLeod, H. B.	do.	480.00
Mairs, S. R.	do.	480.00
Markland, James.	do.	480.00
Mayers, Frederick	do.	480.00

*Employees paid in gold January 1, 1906—Continued.*

## POLICE DEPARTMENT—Continued.

Name.	Position.	Salary per year.
Melbourne, C. S.	Probationary policeman	\$320.00
Melville, H. A.	Second-class private	480.00
Miles, L. E.	First-class private	900.00
Miller, H. M.	Second-class private	480.00
Millmon, Alex	Corporal	960.00
Mitchell, J. A.	Second-class private	480.00
Moncrieffe, S. O.	Probationary policeman	320.00
Monrow, T. F.	First-class private	900.00
Morgan, James	do.	900.00
Morris, J. N.	Second-class private	480.00
Morris, Wm	do.	480.00
Moulton, J. S.	do.	480.00
Murdock, Andrew	Second-class sergeant	1,000.00
Murthwaite, I. A.	Second-class private	480.00
Nash, C. O.	Probationary policeman	320.00
Nichols, Wm	Second-class private	480.00
Nugent, Dennis	Corporal	960.00
Nugent, F. S.	Second-class private	480.00
O'Connor, Chas	Corporal	960.00
Parke, B. A.	Probationary policeman	320.00
Parker, G. E.	Second-class private	480.00
Parkinson, J. B.	do.	480.00
Penaranda, Prospero	do.	480.00
Peterson, Wm	do.	480.00
Pilgrin, W. C.	do.	480.00
Pitzer, M. M.	Corporal	960.00
Poulton, Chas	Second-class private	480.00
Prout, J. A.	do.	480.00
Rampy, W. A.	Probationary policeman	320.00
Ramsey, H. E.	First-class private	900.00
Ramsey, Joe.	Corporal	960.00
Reeves, P. A.	Second-class private	480.00
Rhoden, A. N.	do.	480.00
Roberts, David	do.	480.00
Robertson, W. T.	Clerk	480.00
Robinson, Abraham	Second-class private	480.00
Robinson, E. M.	Second-class sergeant	1,000.00
Robinson, S. E.	Second-class private	480.00
Rochel, G. P.	First-class sergeant	1,200.00
Rodriguez, Ricardo	Probationary policeman	320.00
Rose, Chas.	Second-class sergeant	1,000.00
Ross, Lieut. S. L., U. S. Army	Second lieutenant	\$2,310.00
Rowe, E. F.	Stenographer	1,600.00
Samuels, M. C.	Second-class private	480.00
Scarlett, David	do.	480.00
Schenck, S. B.	First-class sergeant	1,200.00
Schuetz, J. B.	First-class private	900.00
Seagraves, J. H.	First-class sergeant	1,200.00
Seeger, Joseph	do.	1,200.00
Shanton, Capt. G. R.	Chief of police and marshal of Zone	8,000.00
Shaw, J. N.	First-class private	900.00
Shirley, J. C.	Second-class private	480.00
Sinclair, J. R.	do.	480.00
Smikle, L. B.	do.	480.00
Smith, Elisha	do.	480.00
Spence, Percival	do.	480.00
Sterling, F. E.	do.	480.00
Sterritt, C. J.	do.	480.00
Stewart, James	do.	480.00
Sturdevant, H. S.	First-class private	900.00
Taylor, Edward	Second-class private	480.00
Tejada, M.	do.	480.00
Thomas, A. C.	do.	480.00
Thomas, C. A.	do.	480.00
Thomas, L. J.	do.	480.00
Thompson, S. T.	do.	480.00
Tipton, G. W.	Second-class sergeant	1,000.00
Torrans, John	Second-class private	480.00
Turner, J. S.	do.	480.00
Vandupool, J. H.	Second-class sergeant	1,000.00
Walker, S. J.	Second-class private	480.00
Ware, J. C.	First-class private	900.00
Watson, Uriah	Second-class private	480.00
Wedderburn, A. C.	do.	480.00
Weltzenberg, Fred	First-class private	900.00
White, D. J.	Second-class private	480.00
Whiteside, D. W.	Corporal	960.00
Wickett, L. J.	First-class private	900.00
Williams, Zedekiah	Second-class private	480.00

\* Less army or navy pay.

*Employees paid in gold January 1, 1906—Continued.*

## HEALTH DEPARTMENT.

Name.	Position.	Salary per year.
<i>Chief sanitary office.</i>		
Alger, Francis.	Messenger	\$480.00
Bovay, Harry E.	Clerk	1,500.00
Burtless, Clarence W.	Stenographer	1,500.00
Dowers, Arnold	Messenger	300.00
Francisco, Howard M.	Clerk	1,200.00
Gorgas, Col. W. C., U. S. Army.	Chief sanitary officer	\$10,000.00
Hall, Howard E.	Clerk	1,200.00
Hands, George R.	Stenographer	1,500.00
Hastings, Oliver H.	Clerk	1,500.00
Hauswirth, Mrs. Lura.	Stenographer	1,200.00
Huddleston, Thos. F.	Medical property clerk	1,200.00
Kendall, Arthur I.	Bacteriologist.	3,000.00
Malia, John T.	Clerk	1,500.00
Molina, Aurelia.	Messenger	300.00
Musgrave, William S.	Nurse	720.00
Parker, Charles	Clerk	1,800.00
Pickering, George W.	Assistant storekeeper property division.	1,000.00
Porter, Harkins J.	Clerk	1,200.00
Rall, Emil J.	do	1,500.00
Rosenbaum, A. L.	Nurse	720.00
Smith, E. C.	Assistant chief sanitary inspector	2,100.00
Unckles, R. W.	Sanitary inspector	1,500.00
Wagner, Frank	Assistant storekeeper.	1,500.00
Walker, John S.	Stenographer	1,500.00
Weems, M. A.	do	1,500.00
Wirt, A. M.	Clerk	1,500.00
Whelpley, A. H.	Chief clerk	2,000.00
Montalvo, C. (temporary)	Physician	1,200.00
<i>Chief quarantine office.</i>		
Aparicio, Felipe.	Sailor	850.00
Aparicio, Renigio	do	850.00
Coffin, Howard	Clerk	1,500.00
Connor, M. E.	Assistant quarantine officer	2,400.00
Darby, Taylor E.	do	1,800.00
Evans, Joseph G.	Intern	1,200.00
Guevara, Florencia	Fireman	420.00
Idalgo, Leoncio	Sailor	850.00
Loken, Harold O	Disinfecter	1,500.00
Lundishef, Alexander.	Quartermaster	900.00
Perry, Dr. James C., P. H. and M. H. S.	Chief quarantine officer	\$7,000.00
Pierce, Claude C., P. H. and M. H. S.	Quarantine officer, Colon.	\$3,300.00
Pitman, William	Engineer	1,200.00
Schwan, Leonard	Disinfecter	1,500.00
Schwan, Mary	Matron	300.00
Armistead, C. H.	Sanitary inspector	1,200.00
Barclay, Leopold	Sanitary foreman.	900.00
Blackhurst, John	Storekeeper	1,500.00
Bunting, John	Assistant timekeeper	900.00
Calvo, J. E.	Physician	1,800.00
Dennis, L. R.	Sanitary inspector	1,200.00
Edwards, Henry M.	Storekeeper.	900.00
Flood, Robert E.	Foreman	900.00
Fuente, G. de la.	do	900.00
Gamboa, Hortensio	Inspector	1,200.00
Gibbs, George R.	Inspector of streets	1,200.00
Hull, John B.	Foreman	900.00
Jepson, Peter	Sanitary inspector	1,200.00
Le Prince, Joseph A.	Chief sanitary inspector	3,000.00
Lynch, Cornelius	Sanitary inspector	1,200.00
McKenzie, Rhoderick C.	do	1,200.00
Martin, James.	do	1,200.00
Maynard, Alfred E.	Physician.	1,800.00
Merino, Emilio	Sanitary inspector	1,200.00
Merlano, Antonio C.	Physician.	1,800.00
Monagas, Antonio.	Sanitary inspector	1,200.00
Montener, Federico.	Sanitary foreman.	900.00
Mothersill, Albert	do	900.00
Paredes, Azael	Time clerk	1,200.00
Purnell, Dr. John H.	Health officer.	3,000.00
Recorey, Benigno	Foreman	900.00
Rocks, James	Sanitary inspector	1,500.00
St. Lanne-Kressler, Albert	Chief clerk	1,500.00

\*Less Army or Navy pay.

*Employees paid in gold January 1, 1906—Continued.*

## HEALTH DEPARTMENT—Continued.

Name.	Position.	Salary per year.
<i>Chief quarantine office—Cont'd.</i>		
Sanchez, Joseph M.....	Sanitary inspector.....	\$1,200.00
Schultze, Gilbert J.....	Inspector.....	1,200.00
Smith, E. A.....	Sanitary inspector.....	1,200.00
Tanco, Carlos.....	do.....	1,200.00
Vallarino, Henry.....	Foreman.....	900.00
Villareal, Jose M.....	Sanitary inspector.....	1,200.00
Vollum, Paul E.....	do.....	1,200.00
<i>Health office, Colon.</i>		
Baath, Charles.....	Sanitary foreman.....	900.00
Becker, Emil.....	Trained nurse.....	720.00
Chisholm, C. R.....	Timekeeper.....	1,200.00
Coolidge, Sumner.....	Physician.....	2,400.00
Deibert, George S.....	Clerk.....	1,500.00
Ferguson, Howard.....	Chief clerk.....	1,500.00
Frank, Gus.....	Sanitary inspector.....	1,200.00
Gleason, Louis B.....	Stenographer.....	1,500.00
Guardia, Juan N. de la.....	Sanitary inspector.....	1,200.00
Kingsbury, A. H.....	Foreman carpenter.....	1,500.00
Larson, Leander.....	Inspector.....	1,200.00
McScott, William.....	Sanitary foreman.....	900.00
Mapson, Joseph.....	Assistant foreman.....	720.00
Meikle, L. S.....	Medical inspector.....	900.00
Morais, Morris M.....	Timekeeper.....	900.00
Ogilvie, Samuel.....	Assistant foreman.....	720.00
Paddyfoot, J. A.....	Medical inspector.....	900.00
Prima, Francois.....	do.....	900.00
Richards, Roy.....	Sanitary inspector.....	1,500.00
Robson, Edward R.....	Stenographer.....	1,500.00
Savage, D. B.....	Sanitary foreman.....	900.00
Smith, Eyre.....	Medical inspector.....	600.00
Smith, W. E.....	Sanitary foreman.....	900.00
Thomas, Alan.....	Assistant foreman.....	720.00
Trustall, Gordon.....	Sanitary inspector.....	1,200.00
Vaughan, Albert M.....	Nurse.....	900.00
Wiegle, W. E.....	Sanitary inspector.....	1,200.00
Williams, Harold P.....	Clerk.....	900.00
Wheeler, E. H.....	Health officer.....	8,000.00
<i>Sanitation zone.</i>		
Alexis, George D.....	Sanitary inspector.....	1,200.00
Billingslea, J. N.....	Sanitary foreman.....	900.00
Chase, Carl F.....	Time clerk.....	1,500.00
Cook, Henry T.....	Sanitary inspector.....	1,500.00
Corrigan, J. A.....	do.....	1,500.00
Craft, C. P.....	Sanitary foreman.....	1,200.00
Davies, W. H.....	Sanitary inspector.....	1,800.00
Delaigue, H. B.....	do.....	1,200.00
Delgado, Antonio M.....	do.....	1,200.00
Fallario, sr.....	Sanitary foreman.....	900.00
Francke, George.....	Chief clerk.....	1,500.00
Harries, Wilfred L.....	Sanitary inspector.....	1,200.00
Heinemeyer, Louis C.....	Sanitary foreman.....	1,200.00
Higgins, S. A.....	Clerk.....	1,600.00
Hoskinson, John F.....	Assistant chief sanitary inspector.....	2,100.00
Kappers, George A.....	Foreman.....	900.00
Lanfe, Joseph.....	Sanitary foreman.....	900.00
La Pena, Luis de.....	Sanitary inspector.....	1,500.00
Leathley, Thomas A.....	Sanitary foreman.....	900.00
Mattucks, Alexander H.....	Sanitary inspector.....	1,200.00
Menendez, Fernando.....	Sanitary foreman.....	900.00
Mitchell, E. W.....	Sanitary inspector.....	1,200.00
Moran, John J.....	do.....	1,500.00
Murphy, Wm. J.....	do.....	1,800.00
Navarro, Jose W.....	Foreman.....	900.00
Raeder, John M.....	Sanitary inspector.....	1,200.00
Rayon, Alfred.....	Sanitary foreman.....	1,200.00
Richardson, G. O.....	Sanitary inspector.....	1,500.00
Strong, James M.....	Clerk.....	1,200.00
Taylor, George W.....	Sanitary inspector.....	1,200.00
Tucker, Allen B.....	do.....	1,800.00
Vivert, Robert K.....	do.....	1,500.00
Waldron, Frederick E.....	do.....	1,500.00
Wells, Charles.....	do.....	1,200.00
Wright, John V., jr.....	Sanitary foreman.....	900.00

*Employees paid in gold January 1, 1906—Continued.*

## HEALTH DEPARTMENT—Continued.

Name.	Position.	Salary per year.
<i>Office of director of hospitals.</i>		
Aragon, Julio .....	Fireman .....	\$420.00
Busto, Luis .....	Engineer .....	900.00
Carter, Henry R., M.H.S. ....	Director of hospitals .....	\$8,000.00
Delgado, Julio .....	Sailor .....	360.00
Engmann, George .....	Physician .....	1,800.00
Gelabert, Juan .....	Quartermaster .....	900.00
Harness, James B .....	Clerk .....	1,500.00
Joseph, Lafayette .....	Nurse .....	720.00
Laing, D. A. ....	Clerk .....	1,500.00
Laridan, Rev. Georges .....	Visiting chaplain at large .....	480.00
Mudarra, Alejandro .....	Sailor .....	360.00
Rangel, Vincente .....	Messenger .....	360.00
Reyna, Miguel N. ....	Sailor .....	360.00
Stewart, Robert S .....	Chief clerk .....	1,500.00
Tomaselli, J. ....	Physician .....	2,400.00
<i>Ancon Hospital.</i>		
Ames, Frederick W., jr. ....	Druggist .....	1,500.00
Andrews, Charles R. ....	Interne .....	1,200.00
Arias, Marie .....	Nurse .....	720.00
Bailey, Ethel E. ....	do .....	720.00
Bates, John P .....	Physician .....	3,000.00
Batterton, John Y. ....	Clerk .....	1,200.00
Bell, Florence .....	Nurse .....	900.00
Bentley, Margaret L .....	do .....	720.00
Bidwell, Louise C .....	do .....	720.00
Bischoff, Henrietta J. ....	do .....	720.00
Bower, Louise .....	do .....	900.00
Brakemeier, Louise .....	do .....	900.00
Brem, Walter V., jr .....	Physician .....	2,400.00
Brown, Mary .....	Nurse .....	720.00
Brown, C. G .....	Quartermaster .....	1,200.00
Calderon, Ludovino .....	Second assistant druggist .....	900.00
Caldwell, B. W .....	Physician .....	2,400.00
Cannon, Minnie J .....	Nurse .....	720.00
Centerfit, S. E .....	Interne .....	600.00
Clemens, Frederick .....	Carpenter .....	b. 56
Connors, Katherine .....	Nurse .....	900.00
Cook, Minnie .....	do .....	900.00
Crabtree, Lieut. George H. ....	Physician .....	\$2,640.00
Crowe, Vesta .....	Nurse .....	720.00
Curney, Frank R .....	Interne .....	1,200.00
Darling, Samuel T .....	Pathologist .....	2,400.00
Daspit, Sidney I., jr .....	Clerk .....	1,500.00
Dougherty, Sara A .....	Nurse .....	720.00
Drew, Anna L .....	Trained nurse .....	900.00
Evans, Forest M .....	Interne .....	600.00
Farish, Winnie E .....	Nurse .....	900.00
Farmer, Alfred G .....	Interne .....	600.00
Ferdinand, George O .....	Assistant pharmacist .....	1,200.00
Fitzpatrick, Frank .....	Timekeeper .....	1,500.00
Fraga, N. J .....	Steward .....	900.00
Gaines, Samuel S .....	Laundryman .....	1,200.00
Garvey, Margaret I .....	Nurse .....	900.00
Gillette, Alice M .....	do .....	600.00
Gleason, Mary .....	do .....	900.00
Gonzales, Celestio .....	Assistant cook .....	720.00
Green, George W .....	Stenographer .....	1,500.00
Grove, Blanch .....	Nurse .....	720.00
Hackett, Mary .....	do .....	900.00
Hardie, Mabel .....	do .....	720.00
Harrison, Nellie .....	do .....	900.00
Hearne, Charles A .....	Interne .....	1,200.00
Heckel, Carrie .....	Nurse .....	900.00
Hehn, Mary .....	do .....	720.00
Herrick, A. B .....	Pathologist and clinician .....	4,000.00
Hibbard, Eugenia M .....	Head nurse .....	1,800.00
Hibben, Freeman H .....	Interne .....	1,200.00
Higgins, Montgomery E .....	do .....	1,200.00
Holt, Anita M. K .....	Nurse .....	720.00
Hunt, Maud H. B .....	do .....	720.00
Illia, John B .....	Assistant druggist .....	1,200.00
Irving, Florence .....	Nurse .....	720.00
Izurriago, Louis .....	Laundryman .....	720.00
Kenealy, Patrick F .....	Clerk and storekeeper .....	1,500.00
Kennedy, Emma L .....	Nurse .....	720.00

\*Less army or navy pay.

\*Per hour

*Employees paid in gold January 1, 1906—Continued.*

## HEALTH DEPARTMENT—Continued.

Name.	Position.	Salary per year.
<i>Ancon Hospital—Continued.</i>		
King, Ella B.	Nurse	\$900.00
King, Rev. Britton	Visiting chaplain	480.00
Lacroisade, J. P.	Physician	2,400.00
Larned, Grace	Nurse	800.00
Lewis, Henry A.	Vaccinator	1,200.00
Lierow, P.	Embalmer	1,200.00
Lokey, Ethel	Nurse	720.00
Lyons, Mary V.	do.	800.00
Lyster, T. C., U. S. Army	Surgeon	a4,500.00
McArdle, Ellen C.	Nurse	720.00
McDonald, Margaret C.	do.	800.00
Mackereth, Adelaide P.	do.	800.00
Meech, Marietta L.	do.	800.00
Merriam, Lizzie M.	do.	720.00
Milton, James M.	Interne	1,200.00
Miller, Inger	Nurse	720.00
Murdock, Jessie M.	Assistant head nurse	1,600.00
Murphy, Bridget	Nurse	800.00
Noland, Lloyd	Pathologist	8,000.00
O'Donnell, Mary	Nurse	720.00
Pentland, Ruth E.	do.	800.00
Perez, Gervasio	Chief cook	800.00
Phillips, John L., U. S. Army	Superintendent	a7,000.00
Pippert, John	Assistant superintendent of laundry	1,200.00
Pope, Amy E.	Dietist	1,200.00
Quijano, Rev. Daniel	Resident chaplain	1,200.00
Ray, Victoria	Nurse	720.00
Richardson, Ada M.	do.	720.00
Ridley, George P.	Physician	1,800.00
Roper, Mary J.	Nurse	720.00
Rosendo, Jose A.	Head waiter	480.00
Russell, Genevieve	Nurse	800.00
Saxe, Leroy H.	Interne	1,200.00
Shimer, Ira A., U. S. Army	Physician	a8,800.00
Sinclair, Joseph McD.	Chief clerk	1,800.00
Smith, Eleanor J.	Nurse in operating room	1,200.00
Smith, Margaret M.	Nurse	720.00
Smith, Walter J.	Clerk	1,200.00
Sonneman, Otto F.	Quartermaster	1,200.00
Spiers, Grace	Nurse	720.00
Stevens, Juliet N.	do.	600.00
Sweeton, Gertrude	do.	800.00
Taylor, Jane T.	do.	800.00
Thomason, Emily C.	do.	720.00
Vaughn Emmett T.	Interne	1,200.00
Wetherill, Henry E.	do.	1,200.00
Wickens, Rosa	Nurse	800.00
Williamson, Norman E.	Pathologist	2,400.00
Wood, Rev. T. B.	Resident chaplain	1,200.00
<i>Colon Hospital.</i>		
Anderson, Charles L. G.	Physician	2,400.00
Ballantine, Margaret I.	Nurse	720.00
Bean, Florence	do.	900.00
Beverly, E. P.	Physiological chemist	8,000.00
Beyer, Minnie E.	Nurse	720.00
Blake, Allan H.	Physician	1,800.00
Commons, Ernest L.	Interne	1,200.00
Corbett, Mary V.	Nurse	720.00
Curl, Holton C., U. S. Navy	Superintendent	a5,000.00
Dutrow, Howard V.	Interne	1,200.00
Elmer, Mrs. May	Matron	1,200.00
Eno, Harry	Interne	1,200.00
Ensey, C. R.	Clerk	1,500.00
Fairbanks, Helen G.	Nurse	720.00
Furber, Louise A.	do.	720.00
Garcon, Edward J.	do.	900.00
Gibson, Elizabeth	Head nurse	1,500.00
Gillick, Margaret	Chief clerk	1,500.00
Green, Harriet B.	Nurse	720.00
Hayes, Charles G.	Interne	1,200.00
Hendrick, Rev. S. Pursell	Resident chaplain	1,200.00
Holliday, Mary	Stenographer	1,200.00
Holmes, Amy B.	Nurse	800.00
Humphrey, Mary	do.	800.00
Johnson, Alice M. M.	do.	720.00

a Less army or navy pay.

*Employees paid in gold January 1, 1906—Continued.*

## HEALTH DEPARTMENT—Continued.

Name.	Position.	Salary per year.
<i>Colon Hospital—Continued.</i>		
Ferguson, Mrs. J. C.	Nurse	\$720.00
Lane, Harry H.	Interne	600.00
Lawson, David	Ambulance driver	540.00
Lucas, Harvey A.	Steward and storekeeper	1,500.00
MacDonald, Dessa V.	Nurse	720.00
Matta, Minnie M.	do.	900.00
Mooney, Virginia	do.	720.00
Moore, Anna C.	do.	720.00
Orenstein, A. J.	Interne	1,200.00
Preston, Perry B.	Physician	1,600.00
Perry, Ashley H.	Dispensing clerk	1,200.00
Prial, Mary	Nurse	900.00
Pritchard, Ida A.	Nurse in operating room	1,200.00
Richardson, Mary	Nurse	720.00
Ridley, Alberta E.	do.	900.00
Russell, Christine R.	do.	600.00
Shorten, Amy L.	do.	720.00
Smith, Emily C.	do.	720.00
Stevenson, Albert W.	Clerk	1,200.00
Summersgill, Dr. Harry P.	Physician	3,000.00
Todd, Amy E.	Nurse	900.00
Tomlinson, Fred E.	Assistant steward and storekeeper	600.00
Smith, R. I.	Druggist (head)	1,200.00
Smith, Mrs. Sara B.	Nurse	900.00
Somers, Elizabeth	do.	600.00
Vandergrift, Luella	do.	720.00
Volk, Rev. P. Jose	Resident chaplain	1,200.00
Walsh, Groesback	Interne	1,200.00
Walsh, Mary	Nurse	720.00
Williams, Emma	do.	720.00
<i>Culebra Hospital.</i>		
Caraher, James	Nurse	900.00
Charles, Thomas	do.	720.00
Gardner, M. E.	Physician	1,800.00
Graff, George V.	Clerk and dispenser	1,200.00
Hale, D. J.	Interne	1,200.00
Loveridge, Rev. S. Moss	Resident chaplain	1,200.00
Morgan, William	Orderly	180.00
Pedersen, Walter D.	Nurse	860.00
Scammel, E. J.	Interne	1,200.00
<i>Miraflores Hospital.</i>		
Arden, Bernard	Warden of insane	750.00
Bartlett, Robert L.	Physician	2,400.00
Blum, Robert	Nurse	900.00
De Hart, Sanford	do.	600.00
De la Parra, Lucian G.	Druggist	600.00
Faucett, Samuel T.	Physician	1,800.00
Garland, Henry V.	Clerk and dispenser	1,200.00
Gowin, Charles S.	Nurse	720.00
Graham, Frank	do.	720.00
Jones, Oliver	do.	720.00
Lynn, W. J.	Interne	1,200.00
Pettit, W. N.	Nurse	720.00
Putney, George H.	Interne	1,200.00
Quimby, E. Frederick	Nurse	720.00
Rudd, Edward	Quartermaster	600.00
Smith, Harry	Nurse	720.00
Turner, Anna R.	do.	900.00
<i>Empire Hospital.</i>		
Smith, Peter	Nurse	720.00
Searcy, George H.	Physician	2,400.00
<i>Corozal Dispensary.</i>		
Haines, Dr. A. L.	Physician	2,400.00
<i>Tuboga Sanitarium.</i>		
Dudley, Elmer E.	Nurse	720.00
Krom, Louise M.	do.	900.00
Randall, J. F.	Physician in charge	3,000.00

*Employees paid in gold January 1, 1906—Continued.*

## HEALTH DEPARTMENT—Continued.

Name.	Position.	Salary per year.
<i>Gorgona Hospital.</i>		
Andrews, Charles G.....	Physician.....	\$1,500.00
Brand, Edward W.....	Clerk and dispenser.....	900.00
Dinzey, Richard B.....	Nurse.....	900.00
Kipness, David.....	Interpreter.....	800.00
Smith, Wm. F.....	District physician.....	3,000.00
Wise, Rev. J. L.....	Resident chaplain.....	1,200.00
<i>Santo Tomas Hospital.</i>		
Obarrio, Pedro de.....	Superintendent.....	3,600.00
<i>La Boca Hospital.</i>		
Gaston, John O.....	Physician.....	1,800.00
McLaren, Alexander B.....	Nurse.....	720.00
<i>Paraiso Hospital.</i>		
Loewy, J. D.....	Physician.....	1,800.00
<i>Las Cascadas Dispensary.</i>		
Barton, Fred R.....	Physician.....	1,800.00
Clery, John H.....	Clerk and dispenser.....	1,200.00
Williams, Henry J.....	Interne.....	1,200.00
<i>Tubernilla Tent Hospital.</i>		
Gorham, George H.....	Interne.....	1,200.00
<i>Pedro Miguel Dispensary.</i>		
Burr, R. T.....	Physician.....	2,400.00

Mr. MAGOON. I will also offer, on to-morrow morning, or not later than during the day, a statement showing the properties which have been acquired by condemnation proceedings. Senator Kittredge asked for that also.

The CHAIRMAN. You will send that in?

Mr. MAGOON. Yes, sir.

The CHAIRMAN. I think there will be no meeting, perhaps, to-morrow.

Senator MORGAN. Could you accompany that with the map that we saw here the other day?

Mr. MAGOON. That is here. I left that here, Senator.

I do not like to retire without again urging the necessity of certain legislation by Congress.

The CHAIRMAN. We would like to hear you on that subject. I think Senator Morgan, especially, would like to hear you, and I know the rest of us would, in regard to what you think is desirable in that direction.

Mr. MAGOON. I think I can state it very briefly.

In my judgment there should be legislation by Congress conferring jurisdiction on the supreme and district courts of the Zone to hear and determine actions involving title to real estate in the Zone instituted by or on behalf of the United States or the Isthmian Canal Commission. That is, where the title claimed by the United States is in controversy, that the courts may have jurisdiction to determine it, either where the United States is a plaintiff or where the United States is a defendant.



I think it would be well for this Congress to make some provision whereby mining rights could be secured within the Zone on the land belonging to the United States, at least, and to what we would call the public lands of the Zone.

Senator MORGAN. You think the mining laws of Spain do not apply there now?

Mr. MAGOON. I think the mining laws of Colombia are in force so far as the preservation of title is concerned; but I know that property belonging to the United States can not be disposed of by virtue of the enactments of the sovereign which had exercised sovereignty prior to the oncoming of the sovereignty of the United States.

Senator MORGAN. You concede, then, that the lands within that Zone belong to the United States, or are public lands?

Mr. MAGOON. Under the treaty I am of the opinion that the proprietary title to certain of the lands went to the United States; yes, sir; just as the title of the railroad and the title to the right of way of the canal went to the United States.

Senator MORGAN. In fee?

Mr. MAGOON. Where the French company had the fee, it would go in fee. Where the Panama Government had the fee it would pass in fee. Where it belonged to the municipalities, I do not think the fee went to the United States. The municipalities continued to own it.

Senator ANKENY. What do you propose to mine for there, governor?

Mr. MAGOON. There is gold there, so I am assured; there is gold all through that country.

Senator ANKENY. You are led to believe that there will be mining interests developed there, are you?

Mr. MAGOON. Well, I do not know. There are a number of people coming to me and saying that they have discovered indications of gold that are unmistakable; and of course you see the natives every little while with a little bottle with free gold in it, gold dust, bringing it into town to sell.

Senator ANKENY. You are led to believe it is procured there, are you?

Mr. MAGOON. It is certainly procured on the Isthmus within reaching distance of Panama; perhaps up in the Culpa country or up in Chiriqui. It is well known that there is gold throughout the Isthmus there.

Senator ANKENY. In placers?

Mr. MAGOON. Yes, sir. I have been told so by people who came there asking what documents they could file, and where they should file caveats, or whatever would be necessary to establish and maintain their rights.

Senator ANKENY. What I am getting at, Governor, is this: Would what you are asking be one thing for gold, coal, or other minerals? Would you have one provision to cover them all? They are altogether different propositions, you know.

Mr. MAGOON. Yes; certainly. Of course that addresses itself to the legislative discretion. There are claims that coal exists there, and manganese is known to exist there. There are mines there that have been worked. There are quite a number of valuable minerals.

Senator ANKENY. Getting back to your suggestion, it would be one law to cover all the metals, would it?

Mr. MAGOON. I should think so; yes.

I think it would also be a great favor to the employees on the Zone if the Congress authorized them to apportion their salaries, so that a part of their salaries could be paid to their families in the States, instead of being required to draw their money there.

Senator ANKENY. That would disturb the present monetary arrangement, would it not?

Mr. MAGOON. I do not think so; no, sir.

The CHAIRMAN. That expires within a short time, does it not?

Mr. MAGOON. That expires the 1st of April. But that would not disturb it, by any means.

The CHAIRMAN. Before you get the law on that point enacted that arrangement will expire?

Mr. MAGOON. Yes, sir.

Senator TALIAFERRO. It would not interfere with it anyway, unless the drafts were drawn on the Isthmus?

Mr. MAGOON. No.

Senator TALIAFERRO. It covers only drafts drawn on the Isthmus?

Mr. MAGOON. That is all.

Senator MORGAN. Governor, is there any limit upon the jurisdiction of the respective courts with regard to the amount of money or damages involved in a case?

Mr. MAGOON. Oh, yes. As between the municipal courts and the district court, the district court has original jurisdiction. It is the court of first instance.

Senator MORGAN. What is the lowest limit of money that can be sued for in that court?

Mr. MAGOON. I think \$30—\$25 or \$30—something like that. They have concurrent jurisdiction up to \$100, I think.

Senator MORGAN. That is the money boundary between the jurisdiction of the municipal tribunals and the district court?

Mr. MAGOON. Yes, sir.

Senator TALIAFERRO. Governor, before we get away from that arrangement with the banks, can you give me approximately the amount of monthly governmental disbursements on the Isthmus?

Mr. MAGOON. No; I could not. As I say, I should guess it would be in the vicinity of half a million a month, including gold and silver. No, no; it must be more than that. I would not like to say, because we can get it absolutely. I can supply it to you, Senator, absolutely.

Senator TALIAFERRO. Will you send that with this other information?

Mr. MAGOON. Yes. There is not any need of my guessing, because in speaking of it I realize that it would be more than that. It is a mere guess, you know; something entirely out of my jurisdiction.

The CHAIRMAN. While you are doing that, Governor, I would like to have you give Senator Taliaferro also a statement of the amount in silver and the amount in gold—

Mr. MAGOON. Yes.

The CHAIRMAN. Showing the difference between them.

Mr. MAGOON. I will make it in silver and gold.

Senator TALIAFERRO. I mean the payments, Governor, that are made on the Isthmus; not the payments made from Washington.

Mr. MAGOON. Yes; I understand that. It would be useful to you in connection with the percentages.

The CHAIRMAN. Yes; with a view to arranging about the payments here to the families of laborers down there.

Mr. MAGOON. Yes; that would be very useful. It is used in connection with the Navy and, I think, with the Army when they are in foreign service.

Especially important is it that the Congress reenact provisions similar to section 2 of the act approved April 28, 1904, as follows. Shall I read it?

Senator TALIAFERRO. Yes, sir.

Mr. MAGOON. It is short. Section 2 of that act read:

"That until the expiration of the Fifty-eighth Congress, unless provision for the temporary government of the Canal Zone be sooner made by Congress, all the military, civil, and judicial powers, as well as the power to make all rules and regulations necessary for the government of the Canal Zone, and all the rights, powers, and authority granted by the terms of said treaty to the United States, shall be vested in such person or persons, and shall be exercised in such manner, as the President shall direct for the government of said Zone and maintaining and protecting the inhabitants thereof in the free enjoyment of their liberty, property, and religion."

I think it would be well if Congress were to give legislative approval to the form of government which was established pursuant to this authority by the enactments of the Isthmian Canal Commission at the time it was authorized to exercise legislative powers.

Senator MORGAN. Do you think that legislative approval is necessary to make it valid?

Mr. MAGOON. No, sir; I do not.

Senator MORGAN. Or to validate any or all of the acts of the Commission in pursuance of their supposed authority under that act?

Mr. MAGOON. No; I would not think so, because I think that they were all well within the authority which was conferred. But it would save any possible question which might hereafter arise when the time shall come when we will have the action of our courts, for instance, reviewed by the Supreme Court of the United States.

Senator MORGAN. Would you like to have that added?

Mr. MAGOON. That is the next recommendation which I am making. I mean, I would like to have Congressional sanction to the form of government which has been established down there, because the power of government is in the Congress, and it would save any possible question.

I would also be very glad to have an act conferring upon the Supreme Court of the United States jurisdiction to hear and determine appeals from the supreme court of the Canal Zone under similar limitations and in similar cases to cases from the supreme courts of the Territories of the United States and from the supreme courts of the Philippine Islands and Porto Rico.

Senator MORGAN. The last suggestion about appeals, Governor, would include the necessity for an affirmative act, either by implication or by expression, that the United States is sovereign in that Zone, would it not?

Mr. MAGOON. I think not. You mean that it is complete and absolute?

Senator MORGAN. Yes.

Mr. MAGOON. I think not.

Senator MORGAN. Do you think that the Congress of the United States could confer jurisdiction upon the Supreme Court of the United States to execute its authority and its decrees in any country over which the Government of the United States was not sovereign?

Mr. MAGOON. I think that Congress has conferred that authority to review the findings of consular courts in China upon the supreme court of California, has it not? You see, we maintain courts in a number of countries where we have no sovereignty.

Senator MORGAN. Congress has not conferred that authority, within my recollection, upon any consular courts, except by treaty with the country in which the power was to be exercised; so we apply it to the sovereignty of that country as well as our own.

Mr. MAGOON. But we establish courts in many countries over which we are not sovereign; and as to some of those courts I think Congress has made provision for an appeal to courts of the United States.

Senator MORGAN. No; Congress made a provision which makes it necessary that the sentence of death imposed by such a court should be approved by the President of the United States, and gave the pardoning power to the President of the United States. There is no consular court that I am aware of that has authority to exercise the pardoning power.

Mr. MAGOON. Not pardoning power, but I say—

Senator MORGAN. But you exercise it down there.

Mr. MAGOON. Not as a court. Courts do not exercise the pardoning power, as I understand it.

Senator MORGAN. I said a consul; I did not say your courts. You exercise the pardoning power in a country either within the United States or without the United States. I do not know of any provision of law that would be valid that would authorize any consul or governor of a Territory or any place outside of the Union, such as the Philippines, or the governor of the Zone here, to exercise the pardoning power in a country where the sovereignty of the United States did not exist.

Mr. MAGOON. No; I do not think so either.

Senator MORGAN. So that your exercise of the pardoning power and the claim that you make now in regard to an exercise of appellate jurisdiction over those courts is based upon the necessary predicate, is it not, that we are sovereign in that Zone?

Mr. MAGOON. That we are exercising the powers of sovereignty there can not be any question. As to the extent to which our title extends, that is a matter which ought to be left—

Senator MORGAN. Is that a protectorate, or is it a part of the country that is subject to the laws that Congress enacts, just as would be the case in regard to a place where we had an undisputed title?

Mr. MAGOON. It is undoubtedly subject to the legislation of Congress, when Congress shall see fit to legislate respecting it.

Senator MORGAN. Just as much so as if we had an undisputed title in fee to every acre of ground there?

Mr. MAGOON. Undoubtedly; that is one of the powers of sovereignty, and we have the right to exercise the powers of sovereignty there.

Senator MORGAN. Then I think that could not exist unless the Government of the United States owned the country; so I think Secretary Taft was right when he said that the country belonged to the United States as much as Porto Rico.

Mr. MAGOON. I certainly have no quarrel with either of you on that.

Senator MORGAN. But there is some difficulty about it in the minds of various gentlemen who have been operating down there, and others who have not, that it is necessary for Congress to settle, it seems to me; and I suggest that in connection with extending the jurisdiction of the Supreme Court of the United States over that country, it is necessary for us to declare, without reservation, that we are sovereign there. It seems to me so. Have your courts any equity powers?

Mr. MAGOON. Yes.

Senator MORGAN. Expressly given by your statute?

Mr. MAGOON. By the statute; yes, sir.

Senator MORGAN. You have power to grant divorce?

Mr. MAGOON. No, sir.

Senator MORGAN. That is an equity power. Why have you not got that?

Mr. MAGOON. That requires an affirmative statute, I think. An affirmative statute would be necessary in that case.

Senator MORGAN. An affirmative statute?

Mr. MAGOON. Yes; conferring the jurisdiction properly. I do not think that comes under the general equitable powers of courts.

Senator MORGAN. The powers of a court of equity, under the English system, which we have adopted here in the United States, always extended to questions of divorce; did they not?

Mr. MAGOON. I think not.

Senator MORGAN. Do you mean that the ecclesiastical courts exercised that power?

Mr. MAGOON. Yes.

Senator MORGAN. Have you any ecclesiastical courts there?

Mr. MAGOON. No, sir.

Senator MORGAN. A divorce could not be granted there, then, unless we adopted the ecclesiastical courts as having the authority to grant divorces?

Mr. MAGOON. At any time that the body having authority to exercise legislative powers will legislate, will create a statute conferring the jurisdiction upon the courts of the Zone to grant divorces, they will have it whether they were ecclesiastical courts or not.

Senator MORGAN. Why have they not got it, under your construction that they have all legislative power there?

Mr. MAGOON. The legislative power ceased, Senator.

Senator MORGAN. When?

Mr. MAGOON. With the expiration of the last Congress.

Senator MORGAN. Was it not renewed?

Mr. MAGOON. No, sir; that is what I am asking for—that it be renewed by this Congress.

Senator MORGAN. When renewed it will authorize you, then, to establish the right to grant divorces?

Mr. MAGOON. It would depend upon how broad the language is.

Senator MORGAN. Suppose it is just as broad as you have it there?

Mr. MAGOON. Yes; I should think so—the same as a State legislature.

Senator MORGAN. Have you any courts of ordinary or courts of probate or courts for the administration of estates of decedents, the probate of wills, etc., there?

Mr. MAGOON. The district court exercises that jurisdiction pursuant to the Colombian law, which continued in force in Panama and afterwards in the Zone.

Senator MORGAN. And only in pursuance of that law?

Mr. MAGOON. That is all. The first thing which I have here as to the necessity for local legislation, and why the power of legislation should be regranted, is a new civil code.

Senator MORGAN. Is it necessary for Congress to enact a civil code if you have the power to do it?

Mr. MAGOON. No, sir; but we have not the power to do it now.

Senator MORGAN. No; I mean if we give you the power just as broadly as you had it before.

Mr. MAGOON. No, sir; we could enact it. The body that Congress authorizes would enact it.

Senator MORGAN. Could you have repealed that Colombian law?

Mr. MAGOON. I think so.

Senator MORGAN. In regard to descents and guardianships and administrations and the probating of wills?

Mr. MAGOON. Yes, sir; I think so.

Senator MORGAN. You did not choose to repeal it, and you took the whole system as it stood?

Mr. MAGOON. No; the President continued it in existence with his original order until such time as it should be modified; that is, he continued the local laws until such time as they might be modified by competent authority. Then they proceeded to legislate, and legislated on a number of matters, but did not get to a new civil code prior to the time when the authority to legislate expired. You see, they only possessed that authority for a few months.

Senator MORGAN. Is it your construction of that statute that the President had authority under it to repeal the law of Colombia, or to enact any law that he chose to enact as a substitute for the Colombian law?

Mr. MAGOON. Under this authority?

Senator MORGAN. Yes.

Mr. MAGOON. I should say that he had under that authority until he had designated the Isthmian Canal Commission as the body to exercise it. Thereafter it would be in the Commission.

Senator MORGAN. Well, he did designate it?

Mr. MAGOON. He did; yes, sir.

Senator MORGAN. Was it in that designation that he retained all of the laws in regard to the administration of decedents?

Mr. MAGOON. No; no. That was his proclamation taking over the property, the first proclamation; I think it is dated May, 1904.

Senator MORGAN. Did he derive that power from any prerogative as President, or from the laws of nations?

Mr. MAGOON. I think he derived it from the powers of his office, the law of nations, and the bill known as the Spooner Act.

Senator MORGAN. It took all three of them to confer it on him?

Mr. MAGOON. I do not know about that; but I think the combination of the three did.

Senator MORGAN. That is what I mean—the combination of the three did. Suppose there had been no such combination in the statute—would he have had authority as the ruling power in the territory, by virtue of his prerogative as President of the United States?

Mr. MAGOON. I think he would; yes, sir; to have continued in force the laws. That is the international rule—that the laws which are not incompatible with the changed situation continue under the new sovereignty until they are changed.

Senator MORGAN. Then that is a power not conferred by the act of Congress, but growing out of the laws of nations?

Mr. MAGOON. I think that Congress assented to its exercise. You can put it that way. It existed by virtue of the law of nations.

Senator MORGAN. Did Congress assent to its exercise?

Mr. MAGOON. I should think that the inevitable intendment of the provisions of what was known as the "Spooner bill" was that he should maintain the law and order, the peace and welfare of the community by virtue of the things that he found there.

Senator MORGAN. That he should maintain them; that is very different from creating law and order, is it not, or laws for the preservation of order?

Mr. MAGOON. Well——

Senator MORGAN. He is an executive officer?

Mr. MAGOON. Yes, sir.

Senator MORGAN. Not a judicial or a legislative officer?

Mr. MAGOON. When he maintains the peace he creates order.

Senator MORGAN. But he does not create the law that requires order to be observed, does he, and punishes disorder?

Mr. MAGOON. No, sir; but I think if occasion should arise he would have the authority to do so under what the Supreme Court designate as the national police power.

Senator MORGAN. The national police power?

Mr. MAGOON. Yes. You will recall that in the Debs case this court used that expression.

Senator MORGAN. Well, after this little conference or conversation with you on the subject, I conclude that it is very necessary that Congress should exercise its powers down there, to prevent somebody from using power that does not possess it.

Mr. MAGOON. That may be. I would like to have you use it, whatever induces you to do so, Senator. Up to the present time we have studiously refrained from it. I know the objection; we all recognize the objection, and we have gotten along by the exercise of what is called the "ordinary police power." I do not think there has been any power exercised down there up to the present, since the limitation expired, that could not be exercised by the mayor of an ordinary municipality in the United States. I have been quite careful in that regard.

Senator MORGAN. Have you any courts of admiralty down there?

Mr. MAGOON. No.

Senator MORGAN. How do you settle maritime troubles?

Mr. MAGOON. We have not had any. We have been settling them out of court.

Senator MORGAN. That does not mean that you will not have them?

Mr. MAGOON. Oh, no; oh, no.

Senator MORGAN. How would you settle a case of collision or any other case in regard to a ship, or the wages of seamen, or any other maritime questions?

Mr. MAGOON. If it could not be settled through the office of the collector, if it were a matter which went into the courts, I should feel that I would require considerable length of time to make an investigation if I were to advise them as to where to apply to secure their rights.

Senator MORGAN. To come right to the subject, is it not absolutely necessary that Congress should ordain or establish courts of admiralty in that Zone?

Mr. MAGOON. Undoubtedly.

Senator MORGAN. Yes; it is an indispensable thing. I insisted on that being put in the treaty, but we could not get it in.

Mr. MAGOON. We are liable at any time to have collisions there.

Senator MORGAN. Yes.

Mr. MAGOON. We are liable at any time to have marine loss, and quite a number of things.

Senator MORGAN. We could probably have gotten it in, but a note was received from Mr. Bunau-Varilla in which he said it was necessary to have that treaty hurried up; and thereupon we closed operations and went in and ratified it. Many of these propositions were brought forward.

Mr. MAGOON. Now, gentlemen, I think that that is all I have.

Senator TALIAFERRO. You speak of Mr. Wallace and his statement as to the delay in constructing these buildings for the Young Men's Christian Association.

Mr. MAGOON. Yes.

Senator TALIAFERRO. Have those buildings been constructed?

Mr. MAGOON. No, sir; not yet.

Senator TALIAFERRO. Why have they not?

Mr. MAGOON. For the same reason.

Senator TALIAFERRO. The same reason you assigned?

Mr. MAGOON. Yes, sir.

Senator TALIAFERRO. You have been giving precedence to the buildings for housing the employees?

Mr. MAGOON. And the hospitals.

Senator MORGAN. Do you expect to put up those buildings for the Young Men's Christian Association as soon as you can get at them?

Mr. MAGOON. Certainly; that is my understanding of it. The order has never been revoked. The order was made originally by direction of the Secretary of War, and it stands there just as the other structures do. They are coming along.

Senator TALIAFERRO. Have you buildings enough there now to comfortably quarter the men who are at work?

Mr. MAGOON. No; I should think not; by no means. The buildings are overcrowded. There will be a relief to the gold roll very shortly upon the completion of the new structure being erected on El Tivoli, near Ancon, or a part of Ancon. That will afford a relief, and the buildings which are being constructed for Mr. Stevens and his department at Culebra will afford relief. They are all approaching completion.



Senator TALIAFERRO. Are the colored men allowed to occupy the same buildings that the white men occupy?

Mr. MAGOON. Not as sleeping apartments; no, sir. We have so many of them that there is no occasion to mingle them.

Senator TALIAFERRO. Just one more question: How about the timber? What kind of timber grows on the Isthmus?

Mr. MAGOON. Can you explain that a little more? What information are you seeking for? Is it the quality of timber or the amount of timber?

Senator TALIAFERRO. No; the amount of timber for fuel purposes or for lumber or anything of that kind; not as to its market value.

Mr. MAGOON. As in all tropical countries that I know anything of, the big trees are scarce. They are sparse; there are long intervals between them. Just along the line of the railroad and of the canal, which is where I have been going, the big timber has been cut off. I am told that back in the hills and up around Chiriqui way, and in what we call the "San Blas Indian country," along the Juan Dias River, there are large forests, which are composed of mahogany, cocobola, and, I think, lignum-vitæ, and the heavy, hard woods, such as grow in the Tropics. Then there is also the rubber tree, what they call the "cotton tree," and the various fruit trees, like mangoes and May apples, or star apples, etc. But with that part of the Isthmus with which I have become familiar the growth is what might be called "shrubby." There are, here and there, large trees, in some places clumps of large trees, and in between is an impenetrable thicket of shrubs, vines, and other vegetation, like the low palms, and all sorts of briars.

Senator TALIAFERRO. Is there not any timber in the Zone there that will be suitable for cross-ties?

Mr. MAGOON. No; I would not think so; nothing that I know of; nothing that I have seen. You might make a cross-tie out of a rubber tree, but I do not think so. While I have been there for nine months I have not seen, to my knowledge, a mahogany tree. I see the timber itself; I see it brought in, and I notice it. My attention was first called to it by a curious thing. The boats come in from along the coast, the little sailing vessels, with just one little mutton-leg sail, loaded with wood—apparently cord wood, as we would say here. They come into the inner harbor at the town of Panama and throw this timber overboard, where it sinks, and the tide goes out and they go down and pick it up and bring it to shore. Noticing that is what led me to make some little investigation as to where it came from. I have talked about it, and I have heard about the big trees and big forests; but you see between the Panama Railroad and the canal of the French company and the inhabitants of the little towns along there and the access to means of transportation the big timber has been cut off.

The CHAIRMAN. Are there any other suggestions you wish to make, Governor?

Mr. MAGOON. No, sir; excepting to thank the committee for the courtesy and consideration which I have received.

The CHAIRMAN. We wish to thank you, also, for coming here. We appreciate your information; we have taken a good deal of your time, and we want to thank you for your presence.

Mr. MAGOON. My time has been very well employed. I am very glad to come in close contact with the views of the members of the committee. I have been so far away that I have not been in close contact with the Washington end of this enterprise, and it has been very gratifying and very important. There is one thing, however, that I would like to suggest before I leave, and that is to urge upon the committee the necessity of visiting the Canal Zone and continuing the investigation on the ground.

[The committee thereupon adjourned until Monday, February 19, 1906, at 2 p. m.]

[The following papers are, by direction of the committee, printed as a part of the record:]

*Statement of general auditor of the Isthmian Canal Commission, showing (1) the gross payments made by the Walker Commission, (2) the gross amount of unpaid liabilities incurred by that Commission under contracts for material for the canal work, and (3) the amount the old Commission paid for compensation for officers and laborers, the two items being separately stated.*

ISTHMIAN CANAL AFFAIRS,  
OFFICE OF ADMINISTRATION, PANAMA CANAL BUILDING,  
Washington, D. C., February 5, 1906.

SIR: I have the honor to respectfully invite attention to the hearing before the Senate Committee on Interoceanic Canals, on January 28, 1906, in which I was asked, among other things, for a statement of the entire gross payments made by the Walker Commission; also the gross amount of unpaid liabilities incurred by that Commission under contracts for material for the canal work and the amount the old Commission paid for compensation of officers and laborers, the two items to be separately stated.

To answer these questions I beg to submit the following information:

There was expended by the Walker Commission to April 1, 1905, from the appropriation of \$10,000,000, of June 28, 1902, the sum of \$1,977,686.40, divided as follows:

Salaries and wages.....	\$1, 272, 590. 82
Material and supplies.....	416, 593. 41
Freight, advertising, etc.....	8, 897. 14
Other expenditures.....	279, 605. 03
Total.....	1, 977, 686. 40

Since that time and until November 30, 1905, the present Commission has audited claims on account of the Walker Commission as follows:

Salaries and wages.....	\$198, 999. 75
Material and supplies.....	693, 308. 12
Freight, advertising, etc.....	65, 418. 72
Other expenditures.....	143, 712. 68
Total.....	1, 101, 439. 27

On December 1, 1905, there remained unsettled purchase orders issued and contracts entered into prior to April 1, 1905, in an aggregate amount of \$599,719.84. Since November 30, 1905, the present Commission has paid for account of the Walker Commission on these orders the sum of \$212,794.75, leaving unpaid orders January 31, 1906, for—

Office furniture.....	\$2, 814
Dump cars.....	31, 500
Air-brake equipment.....	12, 000
Iron pipe.....	14, 652
Piling.....	14, 373
Machinery.....	1, 596
Commissary supplies.....	2, 328
Drill parts, dippers, and teeth.....	1, 460
Ties.....	34, 356
300 steel cars.....	258, 000
Miscellaneous supplies.....	13, 848
<b>Total .....</b>	<b>386, 925</b>

The amount of indebtedness of the Isthmian Canal Commission to the Panama Railroad Company, relating to service rendered or supplies furnished prior to April 1, 1905, unvouchered December 1, 1905, was as follows:

Material and supplies.....	\$825. 83
Installation of telephone and telegraph lines.....	12, 238. 87
Floating pile driver.....	3, 666. 58
Repairs, first lot, dump cars.....	1, 370. 84
Repairs, second lot, dump cars.....	823. 63
Installation Ancon electric light.....	7, 213. 44
Repairs to old passenger station.....	934. 66
Other items.....	4, 109. 15
<b>Total .....</b>	<b>31, 183. 00</b>

This makes total expenditures and liabilities of the Walker Commission to April 1, 1905, of \$3,710,028.51.

In addition to the above there is a disputed claim of the Public Accountants Corporation of New York of, say, \$1,500 for services alleged to have been rendered under a contract made by the Walker Commission with this corporation for devising a system of accounts for canal construction, which was not adopted by the present Commission.

Referring to the request for a division of amount paid for wages between officers and laborers, after consultation with you it was deemed more advisable to give a classified statement of the pay rolls of the Walker Commission for the month of March, 1905, divided between gold and silver. Below I give you this information:

	Number of employees.		Combined monthly salary, United States currency value.	
	Gold.	Silver.	Gold.	Silver.
<b>AT WASHINGTON.</b>				
Administration (the commissioners).....	5		\$4,625.00	
Secretary's office .....	81		2,899.18	
Treasurer's office .....	6		746.25	
Auditor's office .....	18		1,731.69	
Engineer's office (draftsmen).....	3		375.00	
General counsel's office .....	2		725.00	
Purchasing and shipping agent's office .....	17		1,437.03	
	77		12,529.15	
<b>ON THE ISTHMUS.</b>				
Executive offices.....	26		8,016.75	
Judiciary and legal office .....	5		1,325.00	
Administration building .....	4		210.00	
Revenues department.....	28	4	2,130.00	\$136.00
Deputy auditor's office .....	7		1,066.67	
Disbursing office.....	10		1,363.47	
Police department.....	104		4,747.43	
Department of engineering .....	774	5,030	87,126.01	119,279.25
Department of sanitation .....	154	996	14,193.75	22,885.67
Division of material and supplies.....	87	1,212	8,441.32	32,692.99
	1,199	7,242	123,620.40	174,992.74

This makes a total of salaries and wages for the month of March, 1905, of: Gold employees, \$136,149.55; silver employees, \$174,992.74; total number of officers and employees, 8,518.

I shall be pleased to give you further detail of these rolls, if desired, and upon request.

It would perhaps be unfair to the prior Commission to omit the statement that a large part of the material shown to have been contracted for and for which payment had not been made on April 1, 1905, was not delivered to the Commission on that date. What I mean to convey is that while the orders had been placed and the liability created by the prior Commission, the actual delivery of the supplies not having been effected, the benefit of this indebtedness did not inure to the Commission under its organization prior to April 1, 1905.

All of which is respectfully submitted.

E. S. BENSON, *General Auditor.*

HON. JOSEPH H. MILLARD,  
*United States Senate.*

*Statement of general auditor, Isthmian Canal Commission, as to bonded indebtedness of the Panama Railroad.*

WAR DEPARTMENT,  
*Washington, February 1, 1906.*

MY DEAR SENATOR: I send you herewith a further statement by the general auditor as to the bonded indebtedness of the Panama Railroad Company.

Very sincerely, yours,

WILLIAM H. TAFT.

HON. JOSEPH H. MILLARD,  
*Chairman Committee on Inter-oceanic Canals,  
United States Senate.*

The contract between the United States of Colombia and the Panama Railroad Company, dated July 5, 1867, provides for an annual payment by the railroad company by way of subsidy or rental for the privileges therein granted of two hundred and fifty thousand dollars, American gold, for ninety-nine years, from August 16, 1867, the date of approval of the contract by the Colombian Congress, twenty-five thousand dollars of which was to be paid annually during twenty years (afterwards indefinitely extended) to the government of the State of Panama.

1. An agreement was made between the Panama Railroad Company and the United States of Colombia in October, 1880, whereby the railroad company issued three million dollars, face value, of 6% sinking fund subsidy bonds, thereby capitalizing the annual payment of two hundred and twenty-five thousand dollars provided for under this agreement for a period of twenty-seven years seven months and twelve days (expiring March 27, 1908). By the terms of this agreement the aforesaid annual payment of two hundred and twenty-five thousand dollars was to be applied by the railroad company.

First. To the payment of interest on the bonds, and second, as an accumulative sinking fund for the redemption of the bonds.

By the terms of the sinking-fund agreement the bonds numbered from 1 to 600, inclusive, were to be first redeemed, which would exhaust the sinking fund to November, 1890, and thereafter the bonds numbered from 601 to 3,000 would be annually drawn by lot in September of each year to an amount equal to the surplus of the sinking fund then applicable to that purpose, and the bonds so drawn, after thirty days' notice to the holder by publication in New York, will be paid on the first day of November in each year until all are cancelled, and from that date the interest on the bonds so drawn will cease.

2. By treaty between the Republic of Panama and the United States Government, exchanged at Washington February 26, 1904, payment of twenty-five thousand dollars to be made by the Panama Railroad Company, heretofore mentioned, became payable to the United States Government. The annual payment falling due in 1905 was made to the United States. Under the terms of this treaty the two hundred and twenty-five thousand dollars now being paid into the sinking fund to retire the subsidy bonds will be payable by the railroad company to the United States Government after March 27, 1908.

The United States Government, under the terms of the treaty, are obligated to pay to the Republic of Panama two hundred and fifty thousand dollars per year, beginning nine years after the date of the exchange of the ratifications (February 26, 1904), which sum the United States Government will receive annually from the Panama Railroad Company.

E. S. BENSON,  
*General Auditor.*

WASHINGTON, D. C., *January 31, 1906.*

## PANAMA RAILROAD COMPANY.

*Statement of outstanding bonds January 30, 1906.***First mortgage 4½ per cent gold bonds:**

In the hands of the public.....	\$2,254,000
In railroad company's treasury.....	628,000
	<hr/> 2,882,000

Three bonds in the hands of the public, drawn for redemption, not yet redeemed; cash for redemption with trustee.

**Sinking fund 6 per cent subsidy bonds:**

In the hands of the public.....	\$454,000
In the railroad company's treasury.....	100,000
	<hr/> 544,000

Twenty-one bonds in the hands of the public, drawn for redemption, not yet redeemed.

E. S. BENSON, *General Auditor.*

JANUARY 30, 1906.

(The following are the letters referred to by Senator Morgan during to-day's proceedings.)

HIGGINS OIL AND FUEL COMPANY,  
*Beaumont, Tex., July 15, 1905.*

ISTHMIAN CANAL COMMISSION,

Mr. W. LEON PEPPERMAN,

*Assistant Chief, Washington, D. C.*

DEAR SIR: Referring to your letter of the 7th instant, with regard to the use of crude petroleum oil for fuel purposes in the construction of the canal across the Isthmus, will say that we shall be pleased to name you prices on this oil, for six months' or a year's supply f. o. b. ship, Sabine, Tex., where vessels drawing as much as 23 feet of water can load, but as we have not a boat large enough to send to Colon, and not knowing whether a foreign tank steamer would be allowed to deliver oil there or not (on which a much lower rate of freight could be secured), we would suggest that you arrange for the transportation yourself, and put up your own tank (which if any oil company did they would certainly take into consideration the cost of the same in naming you a price, and also a profit on the freight) while on the other hand, if you made your own freight arrangements and built your own tank, you would get it at exactly cost and would also enable you to get better competitive prices for oil at this end of the line.

Trusting that we may hear from you whenever you are in the market, we are,

Yours, truly,

HIGGINS OIL AND FUEL COMPANY,  
By C. L. WALLIS, *General Manager.*

ISTHMIAN CANAL AFFAIRS,  
OFFICE OF ADMINISTRATION, PANAMA CANAL BUILDING,  
*Washington, D. C., July 7, 1905.*

SIR: By direction of the chairman of the Isthmian Canal Commission, I have the honor to acknowledge the receipt of your letter of June 19 to Mr. Wallace, stating that you wish to contract to furnish oil for use as fuel on the Isthmus of Panama.

In reply, you are respectfully informed that the Commission is now considering the question of the advisability of using oil for fuel on the Isthmus, and also of the construction of a pipe line. Several different parties have made propositions to construct tanks or pipe lines and furnish oil, and they have been advised to visit the Isthmus in order to inform themselves as to the conditions there, preparatory to submitting their propositions in full.

Before any contract is made, however, proposals will be invited, and everyone interested will be given an opportunity to bid, should it be finally decided to use oil for the purpose stated.

Very respectfully,

W. LEON PEPPERMAN,  
*Assistant Chief.*

C. L. WALLIS,  
*General Manager Higgins Oil and Fuel Co.,  
Beaumont, Tex.*

---

HIGGINS OIL AND FUEL COMPANY,  
*Beaumont, Tex., June 19, 1905.*

Mr. WALLACE,  
*Chief Engineer Panama Canal Construction,  
(Care of The Panama Canal Commission),  
Washington, D. C.*

DEAR SIR: We understand that you recently asked for bids on 50,000 tons of coal, and in this connection permit us to call your attention to the fact that this section of the country is producing crude petroleum oil at the rate of about 150,000 barrels per day, and which is used, nearly altogether, in Texas and Louisiana for fuel by the various railroad companies and by steamers and tugs plying along the coast, and also by the contractors who dig the canal and are raising the grade of the city of Galveston about 16 feet by means of dredges.

Our oil ranges in gravity from 17° to 24° Baume and it is reckoned that 3½ to 4 barrels of oil equals a ton of the best bituminous lump coal.

The market price of this oil f. o. b. ship, in bulk, at Port Arthur or Sabine, Tex., at the present time, is 50 to 55 cents per barrel of 42 gallons, for spot shipments. At present we are not in a position to name you a delivered price at Panama, as we do not own a steamer large enough to send that far away from here that would carry enough to justify going. However, there are plenty of foreign tank ships that we could get on a low charter if we could get the business. We were offered an American tank bottom at a charter of 35 cents per barrel from Port Arthur or Sabine to Panama, but she will not be available until about October 31. We have no doubt

but what a foreign bottom could be secured at a much less price. It would cost, approximately, about \$13,000 or \$14,000 to put up a 55,000 barrel steel tank at Panama, if no piling foundation was required and the tank was set on the ground, as we put them up here. If we had a steady contract, or enough business to justify it, if the Government would not put up a tank at Panama, and we could secure a 5 or 10 acre site on deep water with free wharf and landing privileges, we might put up a tank there ourselves, if we got the Government contract, which we have here at Sabine, Tex., for their deep-water dredge boat.

There is a great saving in burning oil on railroad trains and on marine outfits, as you save a great deal in the cost of hauling, in the way of firemen and stokers, and you also gain about 20 per cent in boiler capacity, as the oil makes so much hotter and steadier fire, and when you are through with it you cut it off and there is no coal burning and going to waste for hours afterwards in your furnace.

You can, no doubt, get six and twelve months' contract for furnishing oil, but this, of course, would cost a little more than spot shipments for immediate delivery as named above.

If the above subject interests you, will be pleased to take the matter up further with you.

Yours, truly,

HIGGINS OIL AND FUEL Co.,  
By C. L. WALLIS,  
*General Manager.*

---

GULF REFINING COMPANY,  
*Pittsburg, Pa., June 9, 1905.*

THOS. P. SHONTS, Esq.,  
CHAS. A. MAGOON, Esq.,  
J. F. WALLACE, Esq.,

*Executive Committee Isthmian Canal Commission,  
Washington, D. C.*

GENTLEMEN: As the Government will undoubtedly be a large consumer of fuel for the operation of its railroad and steam dredges on the Isthmus of Panama and in the various power plants used in connection with the building of the Panama Canal, we wish to respectfully bring to your attention the subject of the use of Texas petroleum as fuel instead of coal.

The location of the Texas field and the large production of oil in that locality, amounting last year, in round numbers, to 26,000,000 barrels, make it possible to compete successfully with coal as a fuel on the Isthmus, with an annual saving of many thousand dollars to the Government.

In order that you may readily understand that this company is entirely independent of the Standard Oil Company, or any combination to control the price of crude oil, I give you below a list of our officials and directors.

Officials of the J. M. Guffey Petroleum Company: J. M. Guffey, president; W. L. Mellon, vice-president; R. B. Mellon, treasurer; C. F. Farren, secretary.

Directors of the J. M. Guffey Petroleum Company: J. M. Guffey, capitalist, Pittsburg; J. H. Reed, chairman Carnegie Steel Com-



pany; Pierre Jay, vice-president Old Colony Trust Company, Boston, Mass.; R. H. Baker, general agent Equitable Life, Texas; R. A. Greer, attorney, Beaumont; D. M. Clemson, Carnegie Steel Company; W. W. Blackburn, treasurer Carnegie Steel Company; T. H. Given, president Farmers' Deposit National Bank, Pittsburg; Joshua Rhodes, capitalist, Pittsburg; W. L. Mellon, Mellon National Bank, Pittsburg; A. W. Mellon, Mellon National Bank, Pittsburg; R. B. Mellon, Mellon National Bank, Pittsburg; C. H. Markham, formerly general manager Southern Pacific Railway, now general manager Guffey company.

Officials of the Gulf Refining Company: J. M. Guffey, president; W. L. Mellon, vice-president; R. B. Mellon, treasurer; C. F. Farren, secretary.

Directors of the Gulf Refining Company; J. M. Guffey, capitalist, Pittsburg; J. H. Reed, chairman Carnegie Steel Company; D. M. Clemson, Carnegie Steel Company; T. H. Given, president Farmers' Deposit National Bank, Pittsburg; R. B. Mellon, Mellon National Bank, Pittsburg; W. L. Mellon, Mellon National Bank, Pittsburg; R. A. Greer, attorney, Beaumont, Tex. \*

Most of these gentlemen are well known in the financial world, and their connection with our enterprise is a sufficient guarantee of our ability to carry to a successful conclusion any contract that we may enter into.

This company, in connection with the J. M. Guffey Petroleum Company, is the most thoroughly equipped independent oil company in the world, they having a combined capital of fifteen million seven hundred and fifty thousand dollars (\$15,750,000). The Guffey company is the largest producing and pipe-line company in the Texas field, and the Gulf company owns and operates, at Port Arthur, Tex., the largest independent refinery in the world. In addition to this and our docking facilities we own and operate, exclusive of chartered vessels, a large fleet of tank steamers and barges, which I enumerate below, giving you the capacity, in barrels, of each vessel:

	Barrels
Steamship <i>Larimer</i> .....	33, 500
Steamship <i>Ligonier</i> .....	33, 500
Steamship <i>J. M. Guffey</i> .....	25, 000
Steamship <i>Cuntania</i> .....	25, 000
Steamship <i>Winnifred</i> .....	25, 000
Barge <i>Conneaut</i> .....	17, 000
Barge <i>Conemaugh</i> .....	17, 000
Barge <i>Shenango</i> .....	25, 000

In addition to having a large production of our own, we do a general pipe-line business in the State of Texas, purchasing oil from the many small producers.

*We are carrying in storage to-day between six and seven million barrels of crude oil.*

I simply mention the above facts concerning our companies so that you may readily see that you are asked to deal with a company that has ample facilities for carrying out a contract, no matter how large.

You are doubtless familiar with the fact that liquid fuel is being used largely at the present time by many industrial plants in the South and on the Atlantic seaboard, and by some of the southern and western railroads, notably the Southern Pacific, the Kansas

City Southern, and the Atchison, Topeka and Santa Fe Railroad, as well as the British Admiralty.

While you are no doubt in position to get reliable statistics, which will enable you to make an accurate comparison with coal, I have taken the liberty of quoting from a lecture delivered before the Franklin Institute in Philadelphia by Dr. Charles B. Dudley, chemist of the Pennsylvania Railroad Company, in which he gives the following tables showing the relative value of oil and coal, based on exhaustive experiments made by the Pennsylvania Railroad Company under his direction:

*Relative value of coal and oil, fuel account alone considered.*

Oil per barrel:	Equal to coal per ton.	Oil per barrel—Cont'd.	Equal to coal per ton.
\$0. 20 -----	\$0. 74	\$1. 20 -----	\$4. 47
. 30 -----	1. 12	1. 30 -----	4. 85
. 40 -----	1. 49	1. 40 -----	5. 22
. 50 -----	1. 86	1. 50 -----	5. 59
. 60 -----	2. 24	1. 60 -----	5. 97
. 70 -----	2. 61	1. 70 -----	6. 34
. 80 -----	2. 98	1. 80 -----	6. 71
. 90 -----	3. 35	1. 90 -----	7. 08
1. 00 -----	3. 73	2. 00 -----	7. 45
1. 10 -----	4. 10		

*Relative value of coal and oil, all ascertained economies considered.*

Oil per barrel at—	Equal to coal per ton.	Oil per barrel at—	Equal to coal per ton.
\$0. 20 -----	\$0. 65	\$1. 20 -----	\$3. 91
. 30 -----	. 98	1. 30 -----	4. 24
. 40 -----	1. 30	1. 40 -----	4. 56
. 50 -----	1. 63	1. 50 -----	4. 89
. 60 -----	1. 96	1. 60 -----	5. 22
. 70 -----	2. 28	1. 70 -----	5. 54
. 80 -----	2. 61	1. 80 -----	5. 87
. 90 -----	2. 93	1. 90 -----	6. 19
1. 00 -----	3. 26	2. 00 -----	6. 52
1. 10 -----	3. 59		

It will be observed that these figures are based on oil weighing 7.3 pounds to the gallon, whereas Texas oil weighs from 7.67 to 7.78 pounds to the gallon, and as the heat is directly in proportion to the weight of the combustible, it is plain that a comparison of Texas oil with coal will make a much more favorable showing for oil than the above figures.

I quote from Mr. Dudley further, as follows:

"As will be described in detail later, there are certain chances for economy in burning oil that do not occur with coal. Of these there have been pretty well worked out, as just stated, economy in handling fuel and ashes, and economy in repairs to locomotives. The amount of these has been obtained in dollars and cents, and is, perhaps, best expressed by saying that, taking all ascertained economies into account, *a pound of petroleum is as good as 2 pounds of coal.*"

The result of this and many other interesting experiments in this country and Europe has been compiled by the Baldwin Locomotive Works, of Philadelphia, in a little pamphlet on oil-burning locomotives entitled, "Record of Recent Construction, No. 37," copy of

which I hand you herewith, trusting that it may be of interest to you in considering this subject.

You will note that Doctor Dudley recommends the use of reduced oil in preference to crude oil. We are in position to supply you with either grade, and will make prices per gallon, per barrel, or per ton, as may be more convenient and satisfactory to your Commission.

While, as a rule, we are loath to enter into long-time contracts, owing to the rapid change in the oil market, we understand fully that a change from coal-burning to oil-burning apparatus would involve a considerable expense to the Government, and that you would not care to consider a short-term contract; hence we are willing to enter into a contract at a fixed price, for a reasonable number of years, entirely sufficient for the economies obtained to make the expense of the equipment insignificant.

If, after considering this matter carefully, your Commission is of the opinion that, owing to the conditions surrounding the use of this fuel—that is, the cost of installation, ownership of same, etc., it is not practicable to advertise for bids and let the contract in the usual way, we are willing to submit a proposition to supply you at a price and for a term to be agreed upon between us, we undertaking to erect tankage, lay pipe lines for the discharge of cargo into tanks on property donated by the Government or purchased by us, agreeing at the end of the contract period to turn over the entire installation at cost, plus a reasonable interest on the investment for the term of the contract, either to the Government or to the successful bidder, should we lose the contract.

Or if your Commission prefer to erect and own your own tankage, lay pipe lines for unloading ships, etc., we are willing to enter into contract for a period agreed upon for the delivery of the oil into the Government tanks.

It is not for the purpose of securing any preference in the consideration of this subject that the above suggestions are made. All we ask is a "square deal," and are willing to consider the matter on any basis suggested by your honorable Commission, relying on our superior facilities and strong financial position, backed by 7,000,000 barrels of oil in storage, to secure the contract.

After you have considered the matter carefully, I shall be glad to have an expression from your honorable body as to whether either of the plans suggested appear feasible, and if not, an outline of any plan that would meet your views, together with a statement of the approximate annual consumption of oil, or, if you do not have this data, the approximate consumption of coal, in tons. We can then, if necessary, send our representative to Colon to look over the field and consult with your engineer relative to site for the erection of tankage and to work out necessary details to enable us to submit proposition.

For your information will say that our ships draw from 22½ to 23½ feet of water, and it would require this depth to discharge cargoes without the expense of lightering.

I shall be glad to take the matter up with you personally at any time, giving you any information that you may desire concerning our company or its operations.

Yours, very truly,

GULF REFINING COMPANY,  
Per G. R. NUTTY, *General Sales Manager.*

THE TEXAS COMPANY,  
MARITIME BUILDING,  
New York, May 23, 1905.

T. P. SHONTS, Esq.,  
*Chairman Isthmian Canal Commission,*  
Washington, D. C.

DEAR SIR: Agreeable to your suggestion to put in writing our application for permission to establish a fuel-oil station in the Canal Zone we beg to submit the following:

*As to our responsibility.*—The Texas Company and its affiliated interests have been and are to-day the largest producers and shippers of fuel oil in the Southwest.

We have handled during the last two years upward of 12,000,000 barrels of oil, making cargo shipments as well as supplying the commercial trade and every railroad in our territory.

As to our plant, facilities, and equipment, we beg to refer to all of these railroad fuel-oil users, and more especially to the Santa Fe and International and Great Northern, which last-mentioned two railroads have been and are still looking to us for their entire fuel-oil requirements.

We feel confident that we are in the best position to furnish your fuel-oil requirements on account of our special facilities, the stocks of oil we carry, and the additional available supplies of such in our territory. As a freighting proposition it seems to us we have also a considerable advantage over either coal or Pacific coast oil.

As to our integrity, commercial standing, and financial ability, we would name the National Park Bank, Mr. J. J. Mitchell, president Illinois Trust and Saving Bank, and Mr. J. W. Gates. Will be pleased to furnish other references, if desired.

*Application for fuel oil station.*—We respectfully solicit a lease or allotment of sufficient land within the Canal Zone for the erection of a station for fuel, illuminating, and lubricating oils, together with docking privileges and necessary rights of way for pipe lines from dock to tanks, etc., upon such terms as you may prescribe.

Understanding that you will leave New York for Colon on June 14, we will have our Mr. Thompson there at the same time, that he may answer any question as to technical details or other matters upon which you may desire information on the ground. He would also be prepared to advise with your engineering department as to best available location for proposed station.

*Distribution of oil by tank cars or pipe lines.*—If it is the intention to make distribution of fuel oil over your railway in your own tank cars, then a switch or track facilities for a tank-loading rack would also be necessary.

If you decide to distribute the fuel oil by pipe line, we would be prepared, upon being made acquainted with the physical conditions applying, to lay such lines or to assist you with specifications for the necessary equipment, that you might install these yourselves. We are thoroughly familiar with this kind of work.

Upon your favorable consideration of our application we are ready to proceed at once with the erection of a fuel oil station of not less than 75,000 barrels capacity, being quite willing to take our chances of securing a contract for part or all of your fuel oil requirements when you are prepared to place the same.

At any time you may be ready to take up this question we shall be prepared, when furnished with details and specifications as to quantity, time, manner, and point of delivery, to name a price on a one, two, or three year contract.

Yours, very truly,

THE TEXAS COMPANY,  
J. S. CULLINAN, *President.*

---

THE TEXAS COMPANY,  
MARITIME BUILDING, 8 BRIDGE STREET,  
New York, September 21, 1905.

T. P. SHONTS, Esq.,  
*Chairman Isthmian Canal Commission,*  
Washington, D. C.

DEAR SIR: In connection with the formal application for station site in the Canal Zone, which we are filing herewith, I beg to advise that if favored with a location it is our purpose to divert some of the tank steamers which we now employ in the trade between Port Arthur and New York and other eastern ports to the trade between Port Arthur and Panama. These steamers are suitable for towing barges, and thus might be made available to transport freight from the terminus of the Kansas City Southern Railway, which, as you no doubt are aware, extends from Port Arthur to Kansas City, Mo., through the leading rice, lumber, and petroleum districts of the Southwest.

I mention this, feeling that it might be of interest in connection with creating a new line of communication for supplies with Panama, a point that might be of interest to your Commission, particularly under the quarantine conditions now existing against other southern ports.

If we are given the privilege of a location for a station site and your Commission should later decide to accept oil as a fuel, either on the railway or in connection with the canal construction, we will be glad to make the facilities and experience of the Texas Company available to assist in the installation of such pipe lines, tankage, or equipment as might be needed in delivering the oil to the point where it was to be used as consumed.

We would like to call your attention particularly to the value of Texas oil for disinfecting. It has been extensively used this year throughout Texas and Louisiana with very satisfactory results.

While we understand that your Commission is not yet ready to consider the question of adopting the use of oil, and that it may be some time before you will be in a position to take up the question, you will appreciate that it will take some time to install the necessary tankage and equipment; and knowing the supplies of oil that are available we feel sure that it will eventually be adopted and steady ready on our own account to provide the necessary transportation, tankage, and equipment, that we may be in a position to handle the business at such a time or in such amount as may be used.

Trusting our application may have early consideration, we beg to remain,

Yours, very truly,

THE TEXAS COMPANY.  
J. S. CULLINAN, *President.*

THE TEXAS COMPANY,  
MARITIME BUILDING, 8 BRIDGE STREET,  
New York, September 21, 1905.

T. P. SHONTS, Esq.,  
*Chairman Isthmian Canal Commission,*  
Washington, D. C.

DEAR SIR: We herewith make formal application for sufficient surface use of property within the Canal Zone on which to install a fuel-oil storage station.

Our representative reports the location best adapted for this purpose to consist of about 12 acres of land adjoining the Panama Railroad, either on the east or west side of the railroad, at a point between Fox River and Monkey Hill, Mount Hope Station.

If the plans of your Commission will not permit of our securing the site designated above, we are desirous of obtaining a site at some other point accessible to the harbor and the railroad on which such a storage station may be located.

Trusting this application may receive your early and favorable consideration, we beg to remain,

Very respectfully, yours,

THE TEXAS COMPANY,  
J. S. CULLINAN, *President.*

---

LONDON W. BATES, 74 BROADWAY,  
New York, October 20, 1904.

Admiral WALKER,  
*Chairman Panama Commission, Washington, D. C.*

DEAR SIR: We have the honor to request permission to install and operate an oil-fuel pipe line, with branches and accessories, between the Atlantic and Pacific terminals of the canal. The location and regulation of permanent and temporary pipe lines and of the storage and distributing tanks shall be that prescribed and approved by the Commission.

Respectfully,

LONDON W. BATES.

---

*Proposed pipe line for the supply of fuel oil on the Isthmus of Panama.*

This project consists in the installation of an oil pipe across the Isthmus of Panama, serving and connecting the cities of Colon and Panama, and located conveniently near the route of the new canal, with a single spur extending toward Alhajuela to the upper Chagres regulation works.

The objective of the installation is to supply crude oil for all forms of power, heating, and sanitary purposes required for the various operations in the canal construction and its attendant interests, and by the inhabitants of the cities of Panama and Colon, and the United States Zone. The convenience of such a line for sanitary purposes in eradicating the mosquito cheaply is manifest.

The plan comprehends a pipe line arranged so that the same may be tapped at places most convenient for the supply of fuel oil to

consumers and to the work on the canal, and to suit whatever classification or division of work that may be followed. Large control and storage tanks near Colon or other suitable site, together with the necessary pumping plant and common to the most modern and improved oil pipe lines, will be installed.

*Route.*—The attached plan illustrates a route projected along or near the line of the existing Panama Railway. The section between Bohio and Culebra is purely tentative, since a definite location can not be fixed until after the line in plan and elevation for the new canal is permanently established, although it appears probable that the line parallel to the present railway will be practicable. A line may be selected farther from the railway than that indicated and distribution effected by stub lines.

Our carefully prepared diagram of flow shows the flow of oil at the different points on the line. The pipe line is calculated for delivering 100 per cent in excess of the quantities shown upon the diagram, and is dimensioned so that the sum of the static and friction heads will not exceed 250 pounds per square inch. The pump capacity will be installed accordingly.

*Installation.*—The pipe line is to be buried or covered where practicable and where necessary. The pipes and valves and tanks are to be coated for durability, and all materials are to be of the best quality for purposes indicated. Tanks are to be properly insulated, eliminating all danger of fire.

Valve houses are proposed as delivery centers. These houses are to be large enough to permit the attendant to have a small sleeping and living compartment, so that the same may always be found on the place.

Two pumps are proposed—one as reserve to the other and so that a tank ship can be unloaded in case the latter is not provided with its own unloading pumps. Steam pumps are considered in the estimate, but oil-engine driven pumps can be substituted. The advantage in the latter case would be considerable, since good boiler feed water will not be easy to obtain, while the harbor water will be suitable for cooling the oil engines.

In operation the pumps will supply the tanks and line at 52 K, and the rest of the line will be supplied by gravity, or nearly so.

A telephone system is included for operation and control between pumping station and tanks at 52.5 K. Tanks at 24 K and 46 K will have to be controlled by the pressure gauges and floats, and, if advisable, automatic cut-off valves, in order to prevent excessive pressure.

*Permit.*—No exclusive permit to install and operate a pipe line is sought, but simply an opportunity to sell and conveniently deliver this commodity to purchasers, subject to suitable conditions and regulations, under which there is no interference with canal work.

*Plans.*—Detailed plans are ready for submission.

LINDON W. BATES,  
74 Broadway, New York.

LINDON W. BATES, 74 BROADWAY,  
New York, October 22, 1904.

*President Isthmian Canal Commission,  
Washington, D. C.*

DEAR SIR: I have the honor to inclose, for convenience of consideration, several copies of a brief digest of the oil pipe-line project contemplated under my application, for which careful studies, estimates, and arrangements have been made.

A competitive opportunity is sought on the Isthmus to store, sell, and conveniently deliver this commodity, subject to the following primary conditions:

First. That the installation and the business conducted shall not conflict with the interests of the United States.

Second. That the installation for which permission is granted shall be subject to inspection and approval by the Commission.

Third. That the permit does not give any property titles, and does not authorize any invasion of private property or rights.

Fourth. That the permit shall grant no rights precluding the installation of other pipe lines for a similar purpose.

Very truly, yours,

LINDON W. BATES.

(Inclosure.)

PAPERS CONCERNING WOMEN FROM MARTINIQUE.

[The following are the papers referred to on page 738 of the printed record:]

ISTHMIAN CANAL ZONE, EXECUTIVE OFFICE,  
Ancon, January 19, 1906.

SIR: I have the honor to acknowledge the receipt of your direction of January 15, 1906, to secure "statement from clergymen \* \* \* concerning women from Martinique."

Complying with said request, I transmit herewith affidavits of all the clergymen stationed in the Canal Zone or who engage in religious work therein, with the exception of Rev. Mr. Wood and Rev. Percy King. Mr. Wood is in South America and Mr. King in Darien, hence the inability to secure statements from these gentlemen.

Respectfully submitted.

Yours, very truly,

CHARLES E. MAGOON,  
Governor.

The SECRETARY OF WAR,  
Washington, D. C.

(Inclosures: Affidavits from the Reverends Wise, Hendrick, Loveridge, Eskins, and Jackson, and affidavit covering interview with Reverend Larridan.)

ISTHMIAN CANAL ZONE, EXECUTIVE OFFICE,  
Ancon, January 19, 1906.

SIR: I have the honor to acknowledge the receipt of your direction with reference to the charges respecting the women brought to the Canal Zone from Martinique, as follows:

"I note tabulated statement sent by Shanton's report to you of November 21; think it would be wise, so far as practicable, to take



the affidavits of the husbands and wives shown in the first column of the statement, and of as many of the others as possible, to show, as to those claiming to be married, when they were married and how long they have lived together and where, and as to all what was stated to them by the agent of the Commission when they applied for transportation and were granted it in Martinique."

Complying with said direction, I have the honor to transmit herewith 167 affidavits of the women brought to the Zone from Martinique. These affidavits were prepared by Mr. J. M. Keedy, prosecuting attorney of the Canal Zone. He went to the places where these women were living, conversed with them, and reduced their statements to the form of an affidavit.

Mr. Keedy reports to me that these women have heard of the articles which were published in the papers of the United States respecting them and their morals, and are fearful that they are to be deported. They are well satisfied with the conditions here and those who are employed are receiving good wages. When Mr. Keedy called and engaged them in conversation they became greatly excited, shed tears, and were palpably alarmed, fearing that they were to be returned to Martinique. It is, therefore, quite possible that these statements can not be relied upon implicitly. They protested that they are not, as they term it, "living in sin." The distinction which they make between relations which are sinful and relations that are proper is that when a woman cohabits with a man—living with him for a short period and not intending to be married to him, but to pass from him to another whenever they feel inclined—such relation is sinful; when a woman takes up her abode with a man, intending to establish permanently the marital relation, to be faithful to him and to deny herself to other men, such relation is not sinful, even if the civil or religious marriage ceremony has not been performed. It seems to be the idea of common-law marriage carried to its logical outcome.

Ever since the charge was made that these women were brought to the Zone for immoral purposes they have been under strict surveillance by the police, and naturally under the observation of the other residents of the Zone. Not one of them has been detected in conduct justifying arrest or even admonition. The severest charge that I have heard was that one of them was seen passing along a street in Gorgona in the early evening accompanied by two men and all three of them were singing; the song was in French and my informant did not know whether it was ribald or religious. So far as I can ascertain they are industrious, peaceable, honest, and up to the standard of morality of the women of their class in the West Indies.

Respectfully submitted.

Yours, very truly,

CHARLES E. MAGOON, *Governor.*

The SECRETARY OF WAR,  
Washington, D. C.

(Inclosures: 167 affidavits from Martinique women.)

ANCON, *January 17, 1906.*

ANCON, CANAL ZONE, *Isthmus of Panama, ss:*

My name is George Oscar Eskins; I am a clergyman of the Anglican Church, in charge of St. Paul's Church, of Panama. I have lived in Panama in charge of my present work since August, 1905. My congregation is largely made up of West India English-speaking people.

My attention has been called to a summary published in the New York Evening Post of an article by Mr. Poultney Bigelow, said to have originally appeared in the New York Independent, and in which Mr. Bigelow is quoted as saying: "On the occasion of my visit the clergy of the Isthmus were loud in protest because the United States authorities had imported at considerable expense several hundreds of colored ladies.

"Prostitutes are not needed on the Isthmus; if they were there is no call to send for them at the expense of the taxpayer. They may be trusted to come without any especial assistance whenever Colon clamors for kindred consolation. For further details in this matter I refer the inquisitive reader to ministers of the gospel now on the Isthmus. For instance, \* \* \* the rector of St. Paul's Episcopal Church, Mr. Eskins."

I do not know Mr. Poultney Bigelow; I have never seen him nor talked with him, and he has never called upon me. I have never had any conversation with any person in respect to the subject of the quotation above, except on one occasion, which was some time before November 18, 1905, when a tall gentleman, dressed in white, called on me at my study in St. Paul's Church in Panama, and introduced himself as the representative of the New York Herald. He stated to me that he had heard from Doctor Wood and Mr. King; clergymen of Panama, that women had been brought by the Canal Commission from Martinique for immoral purposes, and asked what I knew about this. I told him that I knew absolutely nothing about it; that I had heard nothing of the matter before his visit, but that if it was true I thought it was a great mistake. He informed me that he had been to the other two clergymen named, and that they knew all about it.

I have never spoken to any other person about this matter, and I was surprised to see my name connected with the subject in a small paper from Colon.

My work is almost exclusively among English-speaking people and is largely in Panama; my trips on the line of the railroad outside of Panama, extending as far as Bas Obispo, have been made entirely in the daytime. I come in contact very little with the natives of Martinique who live on the Isthmus. The Martiniquans whom I have observed conduct themselves in an upright, moral, and law-abiding manner. I know nothing about immorality or prostitution among the Martinique women, and have never heard or seen anything that would lead me to believe that any Martinique women on the Isthmus are leading immoral lives. Neither have I ever referred to this in any of my sermons.

GEORGE OSCAR ESKINS.

Subscribed and sworn to before me this 17th day of January, 1906  
V. H. PINCKNEY, *Notary Public.*

**ANCON, CANAL ZONE, *Isthmus of Panama*, ss:**

Personally appeared before the undersigned, a notary public in and for the Canal Zone, Joseph W. Jackson, who, after being duly sworn, deposes and says:

That he is an officer, holding the rank of adjutant, in the Salvation Army; that he has charge and direction on the ground of the work of that organization on the Isthmus of Panama; that he has been engaged in such work on the Isthmus for fourteen months; that during that time he has, in the performance of his duties, come in contact with persons of all grades and classes; that especially has he come in contact with English-speaking persons from the West Indies; that he has seen such persons in the various places, camps, towns, and villages in the Canal Zone in their own homes and at meetings held by him among them; that they frequently come to him for advice and assistance in respect to various matters in which they are interested, and that it is not unusual when they feel aggrieved for them to complain to him of their situation.

That in the past, up to within five or six months ago, several complaints were made to him at Cristobal by negro laborers in respect to the quarters furnished them, on the ground that the space assigned to them in the quarters was too restricted; but that the quarters have been increased and enlarged during the past few months, and that no such complaints have been made for five or six months; that several months ago complaints were made to him of the delay in paying laborers of the Commission, but that no such complaints have been made for about three months; that, except in isolated and in unimportant instances, there have been no other complaints made to him by laborers; that the conditions surrounding the laboring people on the Isthmus and especially the English-speaking laborers from the West Indies, are constantly improving and have improved for several months in the past. That he knows of several instances of persons returning to Jamaica from the Isthmus because of ill health, but that he knows of no instance in which a laborer has returned to Jamaica because of dissatisfaction with conditions on the Isthmus; and that it is customary among the Jamaicans on the Isthmus to return to Jamaica from time to time for the purpose of visiting friends and relatives, spending their money and using it for the benefit of the members of their families.

That this is true of the West Indian laborers wherever they may be to from time to time as they accumulate sufficient money return to their homes and after a holiday go back to their place of work; that within his observation a large number of persons have returned to Jamaica from the Isthmus and subsequently come back to the Isthmus to resume their work; that he was in Jamaica in the latter part of November and the first part of December, 1905, spending four weeks in that island, and that during that time he had opportunities for observing conditions there and for securing information in respect to the natives of that island who returned from time to time from the Isthmus; that the Salvation Army maintains at Kingston, Jamaica, a home and institution where for a small charge the natives of the island and other persons are furnished with food and shelter; that during his stay in Jamaica in November and December he talked with the superintendent of that institution who informed him that recently all the accommodations of the institution had been utilized

by natives of the island en route from interior points on the island to the Isthmus or returning from the Isthmus to their homes on the island.

That from statements made to him by the superintendent of the institution, and from his own observation at the institution, it appeared to him that most, if not all, of the laborers returning from the Isthmus took with them savings, and that the effect of that fact and of the accounts of the laborers (except as to ill health, from which some suffered) was such as to arouse a desire on the part of other natives of the island to come to the Isthmus; that he does not believe that in general laborers returning from the Isthmus to Jamaica circulate such reports or make such statements as to deter other laborers from going to the Isthmus; that he heard rumors before and after his trip to Jamaica that the party of Martinique women who came to the Isthmus in November were brought here for immoral purposes; that he has seen these women and had an opportunity of observing them; that he knows that some of them are employed as servants in the families of white employees and other residents on the Isthmus; that others he has seen living with laborers, to all appearances conducting themselves toward the men with whom they live as the wives of such men.

That, except for rumors of the nature referred to above, he has never heard it stated that these women are leading immoral lives, nor has he ever seen or heard anything, other than as stated, that would lead him to believe that they are leading immoral lives; that he has never made any statement to anybody that he thought the women had been brought to the Isthmus for immoral purposes; and that, in his opinion, under the improved sanitary conditions, with the adequate quarters and sufficient wholesome food which are now obtainable, the wages paid laborers are quite sufficient to enable them to maintain themselves in the way they have been accustomed to.

JOSEPH W. JACKSON.

Subscribed and sworn to before me this 18th day of January, 1906.

V. H. PINCKNEY, *Notary Public*.

**ISTHMIAN CANAL ZONE, *Isthmus of Panama*, ss:**

Samuel Purcell Hendrick, being first duly sworn, says that he is a duly ordained clergyman of the Church of England, and is now and has been for the past fourteen years Archdeacon of Panama and superintendent of the mission of the Church of England on the Isthmus of Panama. That a very large proportion of the West Indian laborers on the Isthmus, especially those from Jamaica and the Barbados, are members of the Church of England, and as such are the subject of special care and consideration by affiant. That he visits the several towns and camps along the line of the Panama Railroad and the Isthmian canal and comes in immediate contact with said laborers and their families, and thereby is able to learn both their physical and moral condition and the provision made by the Isthmian Canal Commission and the government of the Canal Zone for promoting the same.

That affiant knows that within the past six months a great amount of work has been done in the way of constructing new and repairing old quarters, so that at present such of the laborers as are quar-

tered in the Commission's structures have the benefit and advantage of adequate sanitary precautions and accommodations, such as ventilation, pure water, bathing facilities, clean beds, etc., and that the food supply in the camps of the Commission is of good quality, ample in amount, and provided with regularity. That medical attendance and hospital service is of the very best and ample to secure and provide the employees with immediate and constant care and treatment during illness without expense to the employee. That the wages paid the colored laborers by the Commission are considerably in excess of what is paid in their home islands; that prior to August 1, 1905, there was a great deal of complaint respecting delays in the payment of wages, but that there has been an improvement in that matter, and now little or no complaint is heard. That there was also complaint respecting the food supply, which complaint related to the failure of the supply rather than to the quality. This has been obviated by the establishment of the commissaries and the granting of the privilege of patronizing the commissaries to the silver employees, and there is now no more complaint respecting that than will always be the case among a large body of people of whatever their social rank or standing.

Affiant knows of his own knowledge that the treatment accorded by the Commission and its superior officers to the laborers of the Isthmus is marked with consideration, fairness, justice, and a desire to in every way meet the reasonable requirements of the situation and of the employees, and in general that there are no complaints as to their immediate foremen and gang bosses.

That the courts of the Zone have the confidence and respect of the inhabitants, and the Zone police accord such treatment to the laborers and other inhabitants of the Zone as to induce satisfaction and content.

That with reference to the morals of the Zone a great improvement was accomplished by the adoption of high license for the saloons, whereby more than two-thirds of the saloons in existence in the month of June, 1905, have ceased to do business. It is generally understood among the inhabitants and believed by affiant that there is no public gambling on the Zone, nor is there a public house of prostitution.

That affiant knows of the arrival in Colon of the steamship *Floridian*, having on board about 650 passengers from the island of Martinique, among which were about 280 colored women, many of whom claimed to be wives of men on board the vessel and others wives of Martiniquean employees who had preceded them to the Isthmus. That immediately upon the arrival of said women a rumor was current that they were women of immoral character who had been brought to the Isthmus by the agencies of the Commission for immoral purposes. That the first knowledge of the prevalence of this rumor was imparted to affiant by a representative of the New York Herald, and affiant knew that if the alleged facts to which said rumor related were true much indignation would be felt by the people of the United States and elsewhere and so expressed himself. Since the arrival of said women they have dispersed along the line; some are now engaged in domestic service, others as laundresses, others as maids, scrubwomen, etc., in the Commission hotels, and a very large proportion of them are living with men and claiming to be married.

It must be said of these women that whether or not the marriage ceremony has been performed they conduct themselves in such manner as to conform to the requirements exacted by society from those who maintain the marital relation and do not pass from one man to another, but in their relations are constant.

That the Commission has done and is doing much to promote the work of clergymen and the extension of religious teaching along the Isthmus, and while the provision is not as yet adequate to meet existing conditions, yet all is being done that can be done at the present time, and furnishes confident assurance that more assistance will come and better conditions will follow.

SAMUEL PURCELL HENDRICK.

Subscribed in my presence and sworn to before me this 18th day of January, 1906.

V. H. PINCKNEY, *Notary Public*.

**ISTHMIAN CANAL ZONE, *Isthmus of Panama*, ss:**

J. L. Wise, being first duly sworn, says that he is a minister of the gospel, duly ordained in the Baptist denomination, and was sent to the Canal Zone by the Southern Baptist convention to work as a missionary among the inhabitants of said Zone; that he has been on the Isthmus of Panama continuously since April 1, 1905; that he lives at Gorgona and engages in religious work in the towns along the line of the Panama Railroad and the isthmian canal and makes frequent trips along the line for purposes of religious ministrations to the inhabitants; that he remembers the arrival at Colon, in the latter part of October, 1905, of about 280 colored women from the island of Martinique, and that a few days thereafter a rumor was prevalent that said women were immoral and had been brought to the Canal Zone for distribution among the workmen for immoral purposes.

Said rumor was both surprising and repugnant to affiant, and, knowing the opposition which the people of the United States, and more especially the members of the religious denominations of the United States, would have to such action if the report proved to be true, affiant proceeded to investigate said rumor and to make careful inquiry and examination as to the morals and conduct of said women; that such examination has continued from the time affiant first heard said rumor up to the present; that affiant, after examination into their individual characters, employed one woman as a domestic servant in his household, and upon this woman being taken ill employed a second. Both these women came under the constant observation of affiant and his wife and were found to be neat, orderly, and excellent servants, and of good moral character. Not less than eight of said women are employed as domestic servants in families residing in Gorgona, where affiant lives, and each and all of them bear excellent reputation and give sufficient evidence of being moral and leading upright lives.

The examination and investigation of affiant along the line of the railroad and of the canal and in the towns and camps visited by him has been specially directed to the conduct of said women in order to ascertain the facts as to whether they were moral or immoral, and affiant finds that a large majority are living with men to whom

they claim to be married and by which said men they are treated as wives, and that the men and women so living together and claiming to be husband and wife conduct and demean themselves toward each other and to the community as being bound by the marriage tie, recognizing and respecting it. To affiant's knowledge, a number of these women who claim to be married and also a number who do not claim to be married women are engaged in domestic service by American and Panaman families, and, so far as affiant knows, give excellent satisfaction.

From his examination and investigation, and from the facts which can be and have been ascertained by him, he is of the opinion and belief that the charge against said women that they are immoral and were brought to the Zone for immoral purposes is not true, but that, on the contrary, these women, with possibly a few exceptions, are upright and honest; that during the two months said women have been upon the Zone they have lived such lives and conducted themselves in such manner as to change the bad opinion which was entertained by the public soon after their arrival, and that they are now looked upon and considered as being entitled to and receiving the respect and consideration which honesty, morality, and good conduct deserve.

J. L. WISE.

Subscribed in my presence and sworn to before me this 16th day of January, 1906.

HARRY D. REED.

ANCON, CANAL ZONE, *Isthmus of Panama*, ss:

Personally appeared before the undersigned, a notary public in and for the Canal Zone, S. Moss Loveridge, who, after being duly sworn, deposes and says:

That he is an Englishman, from the west of England; that he is a minister of the gospel, and that he had been engaged in religious work of a missionary nature on the Isthmus of Panama for five and a half years under the auspices of the Jamaica Baptist Missionary Society; that during that time he has come in contact with the laborers and employees of the Isthmian Canal Commission; that he has, in the prosecution of his work, had opportunities for extensive observations of the conditions surrounding the laborers, and especially of the conditions surrounding the laborers from the British colonies in the West Indies, including Jamaica and the Barbados, among whom his work chiefly lies; that since the inauguration of work by the American authorities on the Isthmus the number of laborers with whom he has been brought in contact has largely increased, as large importations of laborers have been made by the American authorities.

That since the commencement of work by the American Government the condition of laborers on the Isthmus has greatly improved; that adequate, sanitary, and healthful quarters have been provided for them, furnished with a sufficient supply of pure water and with other needful sanitary arrangements where the work chiefly lies, and that as the work is extended these additional sanitary facilities are being provided as rapidly as they can be procured; that the laborers and their families among whom he works are accustomed to bring to him complaints when reason for them arises in respect to matters in which they are interested, and that he visits them and sees them in

their homes; that several months ago some of the laborers complained to him in respect to the inadequacy of the quarters furnished them, but that for five or six months there have been no such complaints; that there have never been complaints made to him by laborers on any other account except in a few isolated cases of men complaining of harsh treatment by foremen and bosses; that these complaints did not exceed three or four in number.

That the laborers from the West Indies are going home from the Isthmus and returning to the Isthmus constantly. Especially is this true at the holiday season. That a large number of them go home taking money with them to invest or to spend in their homes; that so far as his observation extends he knows of no case of the return of a laborer to Jamaica on account of harsh treatment; that the men who do return to Jamaica for any reason, more especially old-timers, who have been on the Isthmus for years, almost invariably return to the Isthmus; that he was in Jamaica during the month of November, 1905, and spent two weeks in the island, and that during that time no case came under his observation of the return to Jamaica of a laborer on account of ill treatment; that at the time of the arrival on the Isthmus of a party of women from Martinique, in the month of November, 1905, he was in Jamaica; that upon his return from Jamaica he heard rumors that the women were brought to the Isthmus for immoral purposes; that he has observed the women in the performance of his duties among the laborers on the Isthmus in and about the places where they live, and that he has at no time seen anything in their conduct that would lead him to believe that they are leading lives different from the lives usually lived by women of the West Indies in their own islands.

That no statement or report has come to his notice indicating that these women are leading lives of prostitution other than the rumors referred to above; that in all the West India Islands, so far as his information and observation extend, there are men and women living together as man and wife who are not legally married; that they maintain toward each other the relation of man and wife while they live together; that the ministers on the Isthmus are using every effort to persuade persons who are living under these conditions to discontinue such practice and to encourage marriage; that the action of the Government in simplifying the marriage laws and passing laws requiring those cohabiting to marry indicates that it is desirous of encouraging the work of the clergymen in this respect; that the situation, morally and physically, surrounding the laborers on the Isthmus is improving every day as rapidly as it is humanly possible for it to improve, and that in his religious work the outlook is, on the whole, encouraging.

S. MOSS LOVERIDGE,  
*Baptist Minister.*

Subscribed and sworn to before me this 18th day of January, 1906.  
V. H. PINCKNEY, *Notary Public.*

ANCON, *January 17, 1906.*

I had an interview with Father G. Laridan, a Roman Catholic clergyman, to-day in reference to his work among laborers on the canal and to the conditions which he has observed. Father Laridan



is a young man, a native of France, and, in addition to his own language, speaks Spanish and some English.

Mr. Francisco Jiminez, of the executive office, acted as interpreter for us. Father Laridan told me that he had been engaged in religious work on the Isthmus of Panama for three years; that he had come in contact during that time with laborers and workmen of various nationalities engaged in work for the Commission, and with their families; that at present, and for some time in the past, he has made frequent periodical visits to Emperador, Gorgona, and Matachin, at all of which places there are canal workmen, and that he has held public religious services at those places; that in addition to holding services at the places named he has visited frequently the towns and camps of Culebra, Bas Obispo, Bohio, and Tavernilla; that in all of these towns he has come in contact with laborers and their families in the barracks and houses in which they live, where he has visited them when sick. Especially is this true of the Martinique laborers, practically all of whom are nominally Catholics.

That he has also visited the hospital at Gorgona, where many of the laborers have received medical attention; that all of the laborers and their families who have come under his observation appear to be happy and contented, and that none of them has, at any time since he has been working among them, made complaint to him of their treatment by the Canal Commission; that they have at all times appeared to be satisfied with the quarters furnished them and with the other conditions by which they are surrounded.

Father Laridan's attention was called to the party of women who came to the Isthmus from Martinique in November, and to the statement made in a newspaper that they came for immoral purposes. He said that he knew of their coming and had seen them at various places on the Canal Zone; that he had not made any special inquiry in reference to their morals, but that he had seen nothing in their conduct to indicate to him that any of them are prostitutes, and that he had not heard any person say that any of the women are prostitutes.

That he knows that many of those women are living with men on the Isthmus, to whom they claim to be married, and that some of them are living with men with whom they claim to have lived before they came to the Isthmus and to whom they are not married; that it is not unusual in the country whence these people came for a man and woman to live together for several years without being married, and that that practice exists to some extent on the Isthmus; but that in the majority of such cases the children of such association are brought by the mother and father to the priest to be baptized; that the man and woman living together under those conditions act toward each other as man and wife.

I asked Father Laridan to put the facts which he had given me in the form of a written statement or affidavit, but he declined, saying that the rules of his religious order would not permit him to do so.

H. D. REED,  
*Executive Secretary, Canal Zone.*

ANCON, ISTHMIAN CANAL ZONE,  
*January 20, 1906.*

Personally appeared before the undersigned, a notary public in and for the Canal Zone, Isthmus of Panama, H. D. Reed and Francisco Jimenez, who, having been first duly sworn, depose and say that the facts set forth in the foregoing statement are true.

H. D. REED.  
F. JIMENEZ.

Subscribed and sworn to before me, this 20th day of January, 1906.

V. H. PINCKNEY, *Notary Public.*

CANAL ZONE, *Isthmus of Panama, ss:*

Rose Mont Rose, first being duly sworn, on oath says: I am from Martinique. I have been here about two and a half months. I was informed by Mr. Lavenel in Martinique that I could get plenty of work here, such as washing, ironing, and as house servant. I came because I wanted work. At first I was sweeping camp quarters, and now I am washing, as I can make more money. I was told when I came here by the watchman at Bas Obispo that I must either be married, have work, or leave the camp, as they wanted no single women here unless they were working.

I remember telling an American who came here about a month ago what I have stated here under oath, and I did not tell him anything more. I was not informed either in Martinique or here in the Canal Zone by any of the canal officials that I was to be here as a prostitute, neither did I tell anyone that I was here for that purpose. On the other hand, I told everyone that I came to work and am working. I understand this because I speak English. I learned my English in Dominica.

ROSE (her x mark) MONT ROSE.

Witness: M. C. REIDELL.

Subscribed and sworn to before me at Bas Obispo, Canal Zone, this 19th day of January, A. D. 1906.

M. C. REIDELL, *Municipal Judge.*

---

CANAL ZONE, *Isthmus of Panama, ss:*

I, Ezio Eliza, first being duly sworn, on oath say: I am from Martinique, and have been here about two and a half months. I was married in Martinique six years ago; my husband came here on the 11th day of October, 1905, and I came on the 26th of October, 1905, to join my husband, who is working in the bake shop at Empire, Canal Zone. I live with my husband at Empire.

YSAURA ELISA.

Subscribed and sworn to before me at Empire, Canal Zone, this 18th day of January, A. D. 1906.

RODOLFO AYARZAT, *Municipal Judge.*

CANAL ZONE, *Isthmus of Panama, ss:*

I, Evelina Sovos, first being duly sworn, on oath say: Am from Martinique; came here something over two months ago. Since I came I have been steady at work. Was told I could get plenty of work if

I came here. I get \$6 gold every month and board. It is better than I could do at home. Am comfortable and satisfied.

EVELINA (her x mark) SOVOA.

Witness: M. C. REIDELL.

Subscribed and sworn to before me at Corosal this 17th day of January, A. D. 1906.

M. C. REIDELL, *Municipal Judge.*

CANAL ZONE, *Isthmus of Panama, ss:*

I, Denne Catherine, first being duly sworn, on oath say: I came here about two months ago, having been informed that there was plenty of work and good wages. I am not married. I am employed at the hotel here, and am furnished quarters.

DENNE (her x mark) CATHERINE.

Witness: M. C. REIDELL.

Subscribed and sworn to before me at Corosal this 17th day of January, A. D. 1906.

M. C. REIDELL, *Municipal Judge.*

CANAL ZONE, *Isthmus of Panama, ss:*

I, Alexandria Bartillo, first being duly sworn, on oath say: I am from Martinique. I am married and live here with my husband, who came here before me, and Mr. Lavenal sent me along. Have been married twelve years. My husband is a carpenter and I help by doing housework. I have two children and I am happy and comfortable here.

ALEXANDRIA (her x mark) BARTILLO.

Witness: M. C. REIDELL.

Subscribed and sworn to before me, at Corosal, this 17th day of January, A. D. 1906.

M. C. REIDELL, *Municipal Judge.*

CANAL ZONE, *Isthmus of Panama, ss:*

I, Visione Laveray, first being duly sworn, on oath say: I am living here now, but came from Martinique something over two months ago. The agent, Mr. Lavenal, told me there was need of good house servants, with good wages. I am not married. I am now working in the residence of one of the chiefs here, making general work, washing, etc.

VISIONE (her x mark) LAVENAY.

Witness: M. C. REIDELL.

Subscribed and sworn to before me, at Corosal, this 17th day of January, A. D. 1906.

M. C. REIDELL, *Municipal Judge.*

CANAL ZONE, *Isthmus of Panama, ss:*

I, Pauline Gertrude, first being duly sworn, on oath say I am from Martinique; am single; I have been here about two and one-half months, and came here upon being told by Mr. Lavenal in Martinique

that I could get plenty of work here; I am working now doing washing and ironing, and earning my living in this way, and like it here very much.

PAULINE GERTRUDE.

Subscribed and sworn to before me at Paraiso, Canal Zone, this 17th day of January, A. D. 1906.

M. C. REIDELL, *Municipal Judge*.

CANAL ZONE, *Isthmus of Panama*, ss:

I, Familia Johnbaptist, first being duly sworn, on oath say I am from Martinique; I have been married for five years, and lived with my husband in Martinique; I came here to join my husband, who came before me, and am now living with him at Paraiso.

FAMILIA (her x mark) JOHNBAAPTIST.

Witness: M. C. REIDELL.

Subscribed and sworn to before me at Paraiso, Canal Zone, this 17th day of January, A. D. 1906.

M. C. REIDELL, *Municipal Judge*.

CANAL ZONE, *Isthmus of Panama*, ss:

Cornelia Brazan, first being duly sworn, on oath says: I am from Martinique. I am single, and have been here about two and one-half months. I came because Mr. Lavenal in Martinique told me I could get plenty of work here. I am now working as house servant for a family in Paraiso, and am doing well, and don't want to go back to Martinique.

CORNELIA (her x mark) BRAZAN.

Witness: M. C. REIDELL.

Subscribed and sworn to before me at Paraiso, Canal Zone, this 17th day of January, A. D. 1906.

M. C. REIDELL, *Municipal Judge*.

CANAL ZONE, *Isthmus of Panama*, ss:

Violin Feroline, first being duly sworn, on oath says: I am from Martinique, and came here about two and one-half months. I know Mr. Lavenal there, and he told me I could get work and good wages; that there was plenty of work here. I came for work, and find plenty of it here. I and my husband came here. We have been married three years. He is working in the canal. I attend to our house. We are doing very well.

VIOLIN (her x mark) FEROLINE.

Witness: M. C. REIDELL.

Subscribed and sworn to before me at Paraiso this 17th day of January, A. D. 1906.

M. C. REIDELL, *Municipal Judge*.

CANAL ZONE, *Isthmus of Panama*, ss:

Alfonsin Alfonse, first being sworn, on oath says: I came from Martinique on representation of Mr. Lavenal. I am married about a year ago. My husband is here at work, and I came to him. I do our housework. He supports me.

ALFONSIN (her x mark) ALFONSE.

Witness: M. C. REIDELL.

Subscribed and sworn to before me at Paraiso this 17th day of January, A. D. 1906.

M. C. REIDELL, *Municipal Judge.*

CANAL ZONE, *Isthmus of Panama, ss:*

Louans Stevens, first being duly sworn, on oath says: I am from Martinique. I am not married. I came because Mr. Lavenel told me there was plenty of work and good wages. I wash and iron for anyone, and am doing very well, and am making about \$12 a month.

LOUANS (her x mark) STEVENS.

Witness: M. C. REIDELL.

Subscribed and sworn to before me at Paraiso this 17th day of January, A. D. 1906.

M. C. REIDELL, *Municipal Judge.*

CANAL ZONE, *Isthmus of Panama, ss:*

Maselle Present, first being duly sworn, on oath says: I am from Martinique. I am here two and one-half months. I am not married. Came here on statements from Mr. Lavenel that there was plenty of work, and I came, found work and good wages. Am employed at the commissary and well satisfied. I am not living an immoral life.

MASELLE (her x mark) PRESENT.

Witness: M. C. REIDELL.

Subscribed and sworn to before me at Paraiso this 17th day of January, A. D. 1906.

M. C. REIDELL, *Municipal Judge.*

CANAL ZONE, *Isthmus of Panama, ss:*

Vision Alexander, first being duly sworn, on oath says: I am from Martinique, and came here on statements of Mr. Lavenel that there was plenty of work and good wages. I found work. My health has not been good since I came. Otherwise I am doing well whenever I am well enough.

VISION (her x mark) ALEXANDER.

Witness: M. C. REIDELL.

Subscribed and sworn to before me at Paraiso this 17th day of January, A. D. 1906.

M. C. REIDELL, *Municipal Judge.*

CANAL ZONE, *Isthmus of Panama, ss:*

Cameillia Jarbin, first being duly sworn, on oath says: I am from Martinique, and came here about two and one-half months ago. I know Mr. Lavenel, the agent, who told me there was plenty of work, and since I came I have had plenty of work at the canteen, and am doing very well. I am single.

CAMEILLIA (her x mark) JARBIN.

Witness: M. C. REIDELL.

Subscribed and sworn to before me at Paraiso this 17th day of January, A. D. 1906.

M. C. REIDELL, *Municipal Judge.*

**CANAL ZONE, Isthmus of Panama, ss:**

I, Janie Torrent, first being duly sworn, on oath say: I am from Martinique, coming here about two and one-half months ago, following my husband, who is a laborer here. I help him by washing and ironing for other people.

JANIE (her x mark) TORRENT.

Witness: M. C. REIDELL.

Subscribed and sworn to before me at Paraiso this 17th day of January, A. D. 1906.

M. C. REIDELL, *Municipal Judge.*

**CANAL ZONE, Isthmus of Panama, ss:**

Louisa Lorent, first being duly sworn, on oath says: I am a Martiniquin, and did not come here free, as my husband paid my passage. He is a carpenter here and I keep house for him. I have no children.

LOISE LAURENT LOUIS.

Subscribed and sworn to before me at Paraiso this 17th day of January, A. D. 1906.

M. C. REIDELL, *Municipal Judge.*

**CANAL ZONE, Isthmus of Panama, ss:**

Rose Pelagi, first being duly sworn, on oath says: I am from Martinique, and came here about two and one-half months ago on the statements of Mr. Lavenel. Since coming here I have done well washing and ironing. I am satisfied, as I work all the time.

ROSE (her x mark) PELAGI.

Witness: M. C. REIDELL.

Subscribed and sworn to before me at Paraiso this 17th day of January, A. D. 1906.

M. C. REIDELL, *Municipal Judge.*

**CANAL ZONE, Isthmus of Panama, ss:**

Mercedes Clarie, first being duly sworn, on oath says: I am from St. Lucia; I was married in Martinique two years ago and came here after my husband, who is a carpenter working for the Canal Commission. I live here in Paraiso with my husband and came here to join him.

MERCEDES CLARIE.

Subscribed and sworn to before me at Paraiso this 17th day of January, A. D. 1906.

M. C. REIDELL, *Municipal Judge.*

**CANAL ZONE, Isthmus of Panama, ss:**

Cecil Daily, first being duly sworn, on oath says: I am from Martinique. I came here to join my man, with whom I lived in Martinique for seven years. My husband is a carpenter, working for the Interoceanic Canal Commission, and I am living with him at Paraiso. I am well contented and like it here.

CECIL (her x mark) DAILY.

Witness: M. C. REIDELL.

Subscribed and sworn to before me at Paraiso this 17th day of January, A. D. 1906.

M. C. REIDELL, *Municipal Judge.*

CANAL ZONE, *Isthmus of Panama*, ss:

Marie Robin, first being duly sworn, on oath says: I am from Martinique. I am single, and came here because Mr. Lavenel in Martinique told me I can get plenty of work here. I am living at Paraiso, and am employed as a laundress in the hotel here. I have been here about two and one-half months and am well pleased.

MARIE ROBIN.

Subscribed and sworn to before me at Paraiso this 17th day of January, A. D. 1906.

M. C. REIDELL, *Municipal Judge*.

CANAL ZONE, *Isthmus of Panama*, ss:

Lorena Joucent, first being duly sworn, on oath says: I am from Martinique. I am single, and came here upon being informed by Mr. Lavenel that I could get plenty of work here. I have a very good place and work as a domestic in Paraiso, and like it here very much. I have worked ever since I have been on the Isthmus.

LORENA (her x mark) JOUCENT.

Witness: M. C. REIDELL.

Subscribed and sworn to before me, at Paraiso, Canal Zone, this 17th day of January, A. D. 1906.

M. C. REIDELL, *Municipal Judge*.

CANAL ZONE, *Isthmus of Panama*, ss:

Decani Julia, first being duly sworn, on oath says: I am from Martinique. I am married to Pearre Maximian and live with him here. He is a laborer on the canal and I live with him here. I came after him. I was married in Martinique five years ago. I came here to join my husband.

DECANI (her x mark) JULIA.

Witness: M. C. REIDELL.

Subscribed and sworn to before me, at Paraiso, Canal Zone, this 17th day of January, A. D. 1906.

M. C. REIDELL, *Municipal Judge*.

CANAL ZONE, *Isthmus of Panama*, ss:

Denis Alexia, first being duly sworn, on oath says: I am from Martinique. I came here because Mr. Lavenel told me I could find plenty of work here. I find there is plenty of work to be had, but I have been sick and unable to work. I am married to Mr. Blony and live with him here. He is a laborer on the canal. Have been married and living with my husband for seven years. I was married in Martinique and came here after my husband.

DENIS (her x mark) ALEXIA.

Witness: M. C. REIDELL.

Subscribed and sworn to before me, at Paraiso, Canal Zone, this 17th day of January, A. D. 1906.

M. C. REIDELL, *Municipal Judge*.

CANAL ZONE, *Isthmus of Panama*, ss:

Pauline St. Paul, first being duly sworn, on oath says: I came here from Martinique about two and one-half months ago on statements from Mr. Lavenel. I am a house servant here for a foreman in the shops. I get good wages and am satisfied. I am not married, but do not live an immoral life.

PAULINE ST. PAUL.

Subscribed and sworn to before me at Paraiso this 17th day of January, A. D. 1906.

M. C. REIDELL, *Municipal Judge*.

CANAL ZONE, *Isthmus of Panama*, ss:

Camille Staniclas, first being duly sworn, on oath says: I am here from Martinique and came here to my husband, who is a workman on the railroad. We live in a room by ourselves. My husband is doing very well, as I help along by washing and ironing.

CAMILLE STANICLAS.

Subscribed and sworn to before me at Paraiso this 17th day of January, A. D. 1906.

M. C. REIDELL, *Municipal Judge*.

CANAL ZONE, *Isthmus of Panama*, ss:

Almaide Charles, first being duly sworn, on oath says: I am from Martinique and came here two months and sixteen days ago. I met Mr. Lavenel in Martinique, who told me I could get work of different kinds here and good wages. I am at work at the hotel ever since I have been here and get good wages and am well treated there and get good wages. I stay at the camp, and it is well protected by watchmen all night.

ALMAIDE CHARLES.

Subscribed and sworn to before me at Pedro Miguel this 17th day of January, A. D. 1906.

M. C. REIDELL, *Municipal Judge*.

CANAL ZONE, *Isthmus of Panama*, ss:

Dennis Denir, first being duly sworn, on oath says: I am from Martinique, and came here about two and one-half months ago. Mr. Lavenel got me to come here to better my condition by working and getting good wages, as servants were needed at hotels, hospitals, and private families. I had work until I hurt my hand and under the care of a doctor. I live in the camp, which is protected all night by watchmen and policemen, and no one is allowed to come there.

DENNIS (her x mark) DENIR.

Witness: M. C. REIDELL.

Subscribed and sworn to before me at Pedro Miguel this 17th day of January, A. D. 1906.

M. C. REIDELL, *Municipal Judge*.

CANAL ZONE, *Isthmus of Panama*, ss:

Maria Bouman, first being duly sworn, on oath says: I came from Martinique to this place about two and one-half months ago to get



work, as Mr. Lavenel, the agent, told me I could get plenty of work and good wages. Have been doing general washing ever since I came. Am doing very well. I live in the camp, which is protected by policemen, who allow no one there after 9 o'clock, and while I was in Paraiso Camp, where I was for a while, that was also protected by policemen.

MARIA (her x mark) BOUMAN.

Subscribed and sworn to before me at Pedro Miguel this 17th day of January, A. D. 1906.

M. C. REIDELL, *Municipal Judge*.

CANAL ZONE, *Isthmus of Panama, ss:*

Angela Fanoi, first being duly sworn, on oath says: I am from Martinique. Am single, and have been here for about two and one-half months. I was informed by Mr. Lavenel, in Martinique, that I could get plenty of work here, and I came here to work. I live in camp with other single Martinique women, and our quarters are protected by watchmen and the police. I am now washing for various people for a living.

ANGELA (her x mark) FANOL.

Witness: M. C. REIDELL.

Subscribed and sworn to before me at Pedro Miguel this 17th day of January, A. D. 1906.

M. C. REIDELL, *Municipal Judge*.

CANAL ZONE, *Isthmus of Panama, ss:*

Estafan Lendo, first being duly sworn, on oath says: I am from Martinique; am single, and have been here about two and one-half months. I was sent here by Mr. Lavenel, who promised me work as cook, laundress, etc., at different hotels. I am now washing for various parties. I live in quarters with other single Martinique women, where a watchman is stationed all night, who gives us protection.

ESTAFAN (her x mark) LENDO.

Witness: M. C. REIDELL.

Subscribed and sworn to before me at Pedro Miguel this 17th day of January, A. D. 1906.

M. C. REIDELL, *Municipal Judge*.

CANAL ZONE, *Isthmus of Panama, ss:*

Leoni John, first being duly sworn, on oath says: I am from Martinique; am single, and have been here for about two and one-half months. I live in camp with other Martinique single women; I was promised work here by Mr. Lavenel and came here for that purpose. I am now working as laundress at the Paraiso Hotel. I am well treated and am contented. Watchmen are stationed around our quarters all night and give us protection.

LEONI (her x mark) JOHN.

Witness: M. C. REIDELL.

Subscribed and sworn to before me at Pedro Miguel this 17th day of January, A. D. 1906.

M. C. REIDELL, *Municipal Judge*.

**CANAL ZONE, *Isthmus of Panama*, ss:**

Vanalia Ovia, first being duly sworn, on oath says: I am from Martinique; am single, and have been here for two and a half months. I was sent here by Mr. Lavenel, who told me I could get plenty of work here. I am now washing and ironing for various people. I live in camp with other single Martinique women, and our quarters are protected by a watchman.

VANALIA (her x mark) OVIA.

Witness: M. C. REIDELL.

Subscribed and sworn to before me at Pedro Miguel this 17th day of January, A. D. 1906.

M. C. REIDELL, *Municipal Judge*.

**CANAL ZONE, *Isthmus of Panama*, ss:**

Policia Maria, first being duly sworn, on oath says: I am from Martinique. I am single, and have been here about two and one-half months. Mr. Lavenel told me I could come here and get plenty of work. I am now working about as washerwoman from place to place.

POLICIA (her x mark) MARIA.

Witness: M. C. REIDELL.

Subscribed and sworn to before me at Pedro Miguel this 17th day of January, A. D. 1906.

M. C. REIDELL, *Municipal Judge*.

**CANAL ZONE, *Isthmus of Panama*, ss:**

Henrietta Irrinise, first being duly sworn, on oath says: I am from Martinique. I am single, and live in a rented house in Pedro Miguel. I was informed by Mr. Lavenel that I could get plenty of work here washing and ironing, and I came here for that purpose. I am now washing and ironing for various people, and earn my living in this way.

HENRIETTA IRRINISE.

Subscribed and sworn to before me at Pedro Miguel this 17th day of January, A. D. 1906.

M. C. REIDELL, *Municipal Judge*.

**CANAL ZONE, *Isthmus of Panama*, ss:**

Maria Julia, first being duly sworn, on oath says: I am from Martinique, and came here two months and sixteen days ago—myself and sister. The agent at Martinique did not say anything to me. I paid my fare here. I am a domestic in the family of Mr. Taylor. I sleep, eat, and am paid good wages there. I am satisfied to be here.

MARIA (her x mark) JULIA.

Witness: M. C. REIDELL.

Subscribed and sworn to before me at Pedro Miguel this 17th day of January, A. D. 1906.

M. C. REIDELL, *Municipal Judge*.

**CANAL ZONE, Isthmus of Panama, ss:**

Averline Crospeh, first being duly sworn, on oath says: I am from Martinique since about two months and sixteen days. I am a single woman. Mr. Lavenel told me there were good wages and plenty of work here. I am now working as a laundress and making good wages, and have been very well treated; have been a little sick. I do not live an immoral life. I am satisfied here. Our house is guarded.

AVERLINE (her x mark) CROSPEH.

Witness: M. C. REIDELL.

Subscribed and sworn to before me, at Pedro Miguel, this 17th day of January, A. D. 1906.

M. C. REIDELL, *Municipal Judge.*

**CANAL ZONE, Isthmus of Panama, ss:**

Lucie Luber, first being duly sworn, on oath says: I am from Martinique; came here about 1st November, last year. I am single woman. Mr. Lavenel sent me here, as work and wages were good here. I do washing and ironing for anybody. I am doing very well as far as wages concerned. I am a single woman. I live in the camp house here with many others, and the house is guarded by a watchman.

LUCIE LUBER.

Subscribed and sworn to before me, at Pedro Miguel, this 17th day of January, A. D. 1906.

M. C. REIDELL, *Municipal Judge.*

**CANAL ZONE, Isthmus of Panama, ss:**

Rose Blaise, first being duly sworn, on oath says: I am from Martinique; came here some two months ago, about November 1. Mr. Lavenel told me about the Canal Zone and that there were needed many people here to work, and if I came I could find plenty work and good wages. Ever since I came I am working here at the hotel and am earning a good living; am doing well and don't wish to return. Have been well treated by the people here and am very comfortable. I am not leading an immoral life.

ROSE BLAISE.

Subscribed and sworn to before me, at Corosal, this 17th day of January, A. D. 1906.

M. C. REIDELL, *Municipal Judge.*

**CANAL ZONE, Isthmus of Panama, ss:**

I, Josephine Benzon, first being duly sworn, on oath say: I am from Martinique; I am single and came here to get work, having been told by Mr. Lavenel in Martinique that I could get plenty of work here, and also my brother is here working on the canal as a laborer. I live with him and work for various people in Paraiso doing washing and ironing.

JOSEPHINE (her x mark) BENZON.

Witness: M. C. REIDELL.

Subscribed and sworn to before me at Paraiso, Canal Zone, this 17th day of January, A. D. 1906.

M. C. REIDELL, *Municipal Judge.*

CANAL ZONE, *Isthmus of Panama, ss:*

I, Francilia St. Rose, first being duly sworn, on oath say: I am from Martinique; I am married and came here to join my husband, who came from Martinique before me and is employed as a laborer on the canal. I live with him at Paraiso. I have been here about two and one-half months. I have been married three years.

FRANCILIA (her x mark) ST. ROSE.

Witness: M. C. REIDELL.

Subscribed and sworn to before me at Paraiso, Canal Zone, this 17th day of January, A. D. 1906.

M. C. REIDELL, *Municipal Judge.*

CANAL ZONE, *Isthmus of Panama, ss:*

I, Louise Baya, first being duly sworn, on oath say: I am from Martinique, and came here about two and one-half months ago on the statements of Mr. Lavenel that I could find plenty of work here. I am single. I am working at the Cantina and getting good wages. Have not been well part of the time. I live with a man, who is my husband; was married five years ago and came here to join him.

LOUISA (her x mark) BOYA.

Witness: M. C. REIDELL.

Subscribed and sworn to before me at Paraiso this 17th day of January, A. D. 1906.

M. C. REIDELL, *Municipal Judge.*

CANAL ZONE, *Isthmus of Panama, ss:*

I, Eugenie Dumas, first being duly sworn, on oath say: Came here from Martinique about two and one-half months ago. Came with quite a number of others on statements from the agent, Mr. Lavenel. I am not married. I am working since I came as a washwoman, and am doing very well.

EUGENIE DUMAS.

Subscribed and sworn to before me at Paraiso this 17th day of January, A. D. 1906.

M. C. REIDELL, *Municipal Judge.*

CANAL ZONE, *Isthmus of Panama, ss:*

I, Ferdilia Capron, first being duly sworn, on oath say: I came here from Martinique on representations from Mr. Lavenel that I could find plenty of work and wages. My trade is making cigars. I am single, but live a good life. I do any work that comes handy.

FERDILIA CAPRON.

Subscribed and sworn to before me at Paraiso this 17th day of January, A. D. 1906.

M. C. REIDELL, *Municipal Judge.*

CANAL ZONE, *Isthmus of Panama, ss:*

I, Louisa Saville, first being duly sworn, on oath say: I am from Martinique, and came here about two and one-half months ago. Came on the statements of Mr. Lavenel that I could get work.

Since I came I have got work, washing and ironing. I do not live with a man. I am single. I work every day and have good police protection at our quarters.

LOUISA (her x mark) SAVILLE.

Witness: M. C. REIDELL.

Subscribed and sworn to before me at Paraiso this 17th day of January, A. D. 1906.

M. C. REIDELL, *Municipal Judge*.

CANAL ZONE, *Isthmus of Panama, ss:*

I, Ida Raymond, first being duly sworn, on oath say: I am acquainted with two other girls here from Martinique, named Iniah and Janie, who are working in American families. They are well satisfied, as both told me so, and their employers are also satisfied and treat them well. They are both happy.

IDA RAYMOND.

Subscribed and sworn to before me at Corosal this 17th day of January, A. D. 1906.

M. C. REIDELL, *Municipal Judge*.

CANAL ZONE, *Isthmus of Panama, ss:*

I, Janie Louisa, first being duly sworn, on oath say: I am from Martinique, having come here about two months and eighteen days ago. I am working at the same place with Ononia Johns and get the same wages. I am well satisfied and the family all seem to love me when I am working. I do nursing for the baby of the family. I am satisfied with the work and pay. I get boarding, lodging, and many other little things besides my wages.

JANIE (her x mark) LOUISA.

Witness: M. C. REIDELL.

Subscribed and sworn to before me at Corosal this 17th day of January, A. D. 1906.

M. C. REIDELL, *Municipal Judge*.

CANAL ZONE, *Isthmus of Panama, ss:*

I, Ononia Johns, first being duly sworn, on oath say: I am from Martinique; came here about two and a half months ago. Mr. Lavenel told me I could get plenty of work and could make money and have good quarters. I am working in an American family and am treated well, and I like the man, wife, and children. I get good wages and am satisfied with the work and treatment I received. I am now getting \$10 gold a month. I am satisfied.

ONONIA (her x mark) JOHNS.

Witness: M. C. REIDELL.

Subscribed and sworn to before me at Corosal this 17th day of January, A. D. 1906.

M. C. REIDELL, *Municipal Judge*.

CANAL ZONE, *Isthmus of Panama*, ss:

I, Cecil Fanton, first being duly sworn, on oath say: Am from Martinique two months and seventeen days. Agent told me I could get work and I came and got work with good wages, and I am satisfied as I am working.

CECIL (her x mark) FANTON.

Witness: M. C. REIDELL.

Subscribed and sworn to before me at Corosal this 17th day of January, A. D. 1906.

M. C. REIDELL, *Municipal Judge*.

CANAL ZONE, *Isthmus of Panama*, ss:

I, Matra Arvet, being first duly sworn, on oath say: I am from Martinique two months and a half. Was told there by agent I could get work and good wages by coming here. Ever since I came I have been employed at the hotel and get good wages. I am satisfied. Am not married.

MATRA (her x mark) ARVET.

Witness: M. C. REIDELL.

Subscribed and sworn to before me at Corosal this 17th day of January, A. D. 1906.

M. C. REIDELL, *Municipal Judge*.

CANAL ZONE, *Isthmus of Panama*, ss:

I, Nelson Bellmore, first being duly sworn, on oath say: I am from Martinique. I am single and came here to get work as servant and cook, having been informed by Mr. Lavenel that I could get work here.

I am now house servant for an American family in Corosal, Canal Zone. I am satisfied with my work.

NELSON (her x mark) BELLMORE.

Witness: M. C. REIDELL.

Subscribed and sworn to before me at Corosal this 17th day of January, A. D. 1906.

M. C. REIDELL, *Municipal Judge*.

CANAL ZONE, *Isthmus of Panama*, ss:

I, Jane Gremore, first being duly sworn, on oath say: I am from Martinique about two months and a half. Agent there told me I could get work, and since I came I got work at the hotel as a servant. I am comfortable. I get \$8 a month with board. I am not married.

JANE (her x mark) GREMORE.

Witness: M. C. REIDELL.

Subscribed and sworn to before me at Corosal this 17th day of January, A. D. 1906.

M. C. REIDELL, *Municipal Judge*.

CANAL ZONE, *Isthmus of Panama*, ss:

I, Cedona Daniels, first being duly sworn, on oath say: I am from Martinique. I am single, and came here to get work, such as washing, ironing, etc.; have been informed by Mr. Lavenel in Martinique that I could get work here and would be treated well.

I am now employed as a laundress at the hotel here and am well pleased.

CEDONA (her x mark) DANIELS.

Witness: M. C. REIDELL.

Subscribed and sworn to before me at Corosal this 17th day of January, A. D. 1906.

M. C. REIDELL, *Municipal Judge*.

CANAL ZONE, *Isthmus of Panama*, ss:

I, Lucy Dafarti, first being duly sworn, on oath say: I am from Martinique. I am single. I came here upon advice of Mr. Lavenel to get work washing, cooking, etc., and am now employed as washer-woman at the Interoceanic Canal Commission Hotel in Corosal and get \$8 per month.

LUCY (her x mark) DAFARTI.

Witness: M. C. REIDELL.

Subscribed and sworn to before me at Corosal this 17th day of January, A. D. 1906.

M. C. REIDELL, *Municipal Judge*.

CANAL ZONE, *Isthmus of Panama*, ss:

I, Lionel Balison, first being duly sworn, on oath say: I am from Martinique, coming here with these other women; was told by Mr. Lavenel there good servants were needed here. I am working at the hotel steady since I came. We all eat there and get good food and wages. I am not married.

LIONEL (her x mark) BALISON.

Witness: M. C. REIDELL.

Subscribed and sworn to before me at Corosal this 17th day of January, A. D. 1906.

M. C. REIDELL, *Municipal Judge*.

CANAL ZONE, *Isthmus of Panama*, ss:

I, Samdoul Sawf, being duly sworn, on oath say: I am from Martinique, coming here about two or three months. The agent there told me I could get plenty of work here at good. I am employed here at the hotel washing and other housework. My husband is here and works in Panama in sanitary department. He came before me. We were married in Martinique 17th July three years ago. The women here in Corosal are always comfortable here and have plenty of work. My husband's sister lives here with, and she is working at the hotel.

SAMDOL (her x mark) SAWF.

Witness: M. C. REIDELL.

Subscribed and sworn to before me at Corosal this 17th day of January, A. D. 1906.

M. C. REIDELL, *Municipal Judge*.

CANAL ZONE, *Isthmus of Panama*, ss:

I, Zanda Oska, first being duly sworn, on oath say: I am from Martinique, with my husband and three children, the oldest being 18 years. I came here two months and seventeen days ago. The agent told me I would meet her husband and could get work with good wages. My husband and son are both assisting as carpenters, and I am washing, with my daughter, for other laborers. We are doing better here than in Martinique.

ZANDA (her x mark) OSKA.

Witness: M. C. REIDELL.

Subscribed and sworn to before me at Corosal this 17th day of January, A. D. 1906.

M. C. REIDELL, *Municipal Judge*.

CANAL ZONE, *Isthmus of Panama*, ss:

I, Louise Maxmion, first being duly sworn, on oath say: I am from Martinique, about three months ago. I am employed at the chief carpenter's house, doing washing, cooking, and general housework. I am not married. I am getting good wages enough to live on—\$8 gold a month.

LOUISE MAXMION.

Subscribed and sworn to before me, at Corozal, this 17th day of January, A. D. 1906.

M. C. REIDELL, *Municipal Judge*.

CANAL ZONE, *Isthmus of Panama*, ss:

I, Ella Lee Antwerp, first being duly sworn, on oath say: I am from Martinique. I came here about two months ago, having been informed by Mr. Lavenel, the agent for Isthmian Canal Commission, that servants were wanted here and that I would find plenty of work and be well treated. I am now employed as a laundress at the Isthmian Canal Commission hotel at Corozal, Canal Zone. I am single, and live in quarters furnished by the Isthmian Canal Commission.

ELLA (her x mark) LEE ANTWERP.

Witness: M. C. REIDELL.

Subscribed and sworn to before me, at Corozal, this 17th day of January, A. D. 1906.

M. C. REIDELL, *Municipal Judge*.

CANAL ZONE, *Isthmus of Panama*, ss:

I, Gabrielle Blauze, first being duly sworn, on oath say: I am from Martinique, and arrived here two months and seventeen days ago. Mr. Lavenel, the agent in Martinique, told me I could get work here, as there was great need of servants. I am a single woman. I am employed to wash at the hotel.

GABRIELLE BLAUZE.

Subscribed and sworn to before me, at Corozal, Canal Zone, this 17th day of January, A. D. 1906.

M. C. REIDELL, *Municipal Judge*.



**CANAL ZONE, *Isthmus of Panama*, ss:**

I, Leonie St. Rose, first being duly sworn, on oath say: I am from Martinique. I am single and came here, having been informed by Mr. Lavenel, agent for the Isthmian Canal Commission, that there was plenty of work here and that I would be well treated. I have been here a little more than two months and now employed as a domestic in the house of the postmaster at Corosal.

LEONIE ST. ROSE.

Subscribed and sworn to before me at Corosal this 17th day of January, A. D. 1906.

M. C. REIDELL, *Municipal Judge*.

**CANAL ZONE, *Isthmus of Panama*, ss:**

I, Maria Louise Missett, first being duly sworn, on oath say: I came here from Martinique to get work as a servant; was told by the agent there that good servants were scarce and good wages would be paid. I am married, coming here with my man, who works in Panama. I am not working now, having been in hospital. My husband keeps me so I don't have to work hard.

MARIE LOUISE (her x mark) MISSETT.

Witness: M. C. REIDELL.

Subscribed and sworn to before me at Corosal this 17th day of January, A. D. 1906.

M. C. REIDELL, *Municipal Judge*.

**CANAL ZONE, *Isthmus of Panama*, ss:**

I, Clement Caestine, first being duly sworn, on oath say: I am from Martinique. I am single and came here to secure employment as a servant. I now work as a domestic at the hotel in Corosal. I was informed by Mr. Lavenel, agent for Isthmian Canal Commission, that I could get work and would be well treated here.

CLEMENT (her x mark) CAESTINE.

Witness: M. C. REIDELL.

Subscribed and sworn to before me at Corosal this 17th day of January, A. D. 1906.

M. C. REIDELL, *Municipal Judge*.

**CANAL ZONE, *Isthmus of Panama*, ss:**

I, Lucie Jermay, first being duly sworn, on oath say: I am from Martinique, coming here about two months ago by Mr. Lavenel, an agent there. I was told there was a great scarcity of good servants and good wages would be had and good treatment. I have been employed at the hotel here as a laundress.

LUCIE (her x mark) JERMAJ.

Witness: M. C. REIDELL.

Subscribed and sworn to before me at Corozal this 17th day of January, A. D. 1906.

M. C. REIDELL, *Municipal Judge*.

CANAL ZONE, *Isthmus of Panama*, ss:

I, Francoise Alphonse, first being duly sworn, on oath say: I am from Martinique, and came here a little over two months ago; was sent here by Mr. Lavenel to get good wages here and good treatment; that there was many different kinds of work. Since I came here I have been working at the hotel.

FRANCOISE ALPONSE.

Subscribed and sworn to before me at Corozal this 17th day of January, A. D. 1906.

M. C. REIDELL, *Municipal Judge*.

CANAL ZONE, *Isthmus of Panama*, ss:

I, Ida Raymond, first being duly sworn, on oath say: I am from Martinique, and came here two months ago. Was informed by the agent at Martinique, Mr. Lavenel, that servants were needed here; that there was plenty of work here, and I would be well treated. I am now washing for a living. I am a single woman.

IDA RAYMOND.

Subscribed and sworn to before me at Corozal, Canal Zone, this 17th day of January, A. D. 1906.

M. C. REIDELL, *Municipal Judge*.

CANAL ZONE, *Isthmus of Panama*, ss:

I, Maria Berti, first being duly sworn, on oath say: I came from Martinique to this place about two and a half months ago, because I was told there was plenty work. Mr. Lavenel told me. I have had work ever since I came, as a servant. I work with Mr. Campbell at the commissary. I sleep at the camp where my husband is. We were married in Martinique two years ago. Mr. Lavenel told my husband to come, and that afterwards I could come.

MARIE BERTI.

Subscribed and sworn to before me at Rio Grande this 18th day of January, A. D. 1906.

M. C. REIDELL, *Municipal Judge*.

CANAL ZONE, *Isthmus of Panama*, ss:

I, Lucille Cuffy, first being duly sworn, on oath say: I am from Martinique. Came here because Mr. Lavenel said I could find plenty of work. I found work since I came doing housework. I get good wages and am satisfied. I get about \$20 a month as a domestic, doing general housework. I am a single woman. I am satisfied, and don't wish to go back to Martinique.

LUCILLE (her x mark) CUFFY.

Subscribed and sworn to before me at Rio Grande this 18th day of January, A. D. 1906.

M. C. REIDELL, *Municipal Judge*.

CANAL ZONE, *Isthmus of Panama*, ss:

I, Metillia Modest, first being duly sworn, on oath say: Am from Martinique here to my husband, who came before I did. I was married one year before coming here. I am a domestic, and earn good wages, and am comfortable. My husband is a laborer on the work here.

METILLIA (her x mark) MODEST.

Witness: M. C. REIDELL.

Subscribed and sworn to before me at Rio Grande this 18th day of January, A. D. 1906.

M. C. REIDELL, *Municipal Judge*.

CANAL ZONE, *Isthmus of Panama*, ss:

I, Naomy Etienne, first being duly sworn, on oath say: Am from Martinique; came here to my husband. Have been married about four years. My husband is a laborer and we both make good wages, as I wash and iron. I don't care to leave here.

NAOMY (her x mark) ETIENE.

Witness: M. C. REIDELL.

Subscribed and sworn to before me at Rio Grande this 18th day of January, A. D. 1906.

M. C. REIDELL, *Municipal Judge*.

CANAL ZONE, *Isthmus of Panama*, ss:

I, Julia Waugram, being first duly sworn, on oath say: I am from Martinique, and have been here about two and one-half months. I am married. I was married in Martinique a year and a half before I came here. Mr. Lavenel told my husband to come here and get work and I could come later. He came ahead and got work and I came here and joined him. I am now living with my husband at Rio Grande, Canal Zone, and work, doing washing, etc., to help out.

JULIA (her x mark) WAUGRAM.

Witness: M. C. REIDELL.

Subscribed and sworn to before me at Rio Grande, Canal Zone, this 18th day of January, A. D. 1906.

M. C. REIDELL, *Municipal Judge*.

CANAL ZONE, *Isthmus of Panama*, ss:

I, Marie Elino, being first duly sworn, on oath say: I am from Martinique. I came four months ago to get work and paid my own way. I have been working as a laundress since I have been here. I have been married three years and live with my husband, who is a laborer on the canal at Rio Grande.

MARIE (her x mark) ELINO.

Witness: M. C. REIDELL.

Subscribed and sworn to before me at Rio Grande, Canal Zone, this 18th day of January, A. D. 1906.

M. C. REIDELL, *Municipal Judge*.

CANAL ZONE, *Isthmus of Panama*, ss:

Normia Lucia, being first duly sworn, on oath says: I am from Martinique; am single; Mr. Lavenel told me in Martinique I could get plenty of work here. I came here for this purpose and have been working as a laundress ever since I arrived, about two and one-half months ago.

NORMIA (her x mark) LUCIA.

Witness: M. C. REIDELL.

Subscribed and sworn to before me at Rio Grande, Canal Zone, this 18th day of January, A. D. 1906.

M. C. REIDELL, *Municipal Judge*.

CANAL ZONE, *Isthmus of Panama*, ss:

Eubena Barise, first being duly sworn, on oath says: I am from Martinique and came here to get work, as I heard from Mr. Lavenel that there was plenty and good wages. I get all I want to do. I work for Mr. Sablo as a domestic. He is the telegraph operator at Empire. I am married, and he works at Empire for the Canal Commission. We live together. We were married one year before I came here.

EUBENA (her x mark) BARISE.

Witness: M. C. REIDELL.

Subscribed and sworn to before me at Culebra this 18th day of January, A. D. 1906.

M. C. REIDELL, *Municipal Judge*.

CANAL ZONE, *Isthmus of Panama*, ss:

Alexandria Piquot, first being duly sworn, on oath says: I am from Martinique about two and one-half months ago. Came here to work, as I heard there was plenty. Mr. Lavenel told me. I have not found all the work I could do. I live here in this camp. The house is closed early at night, and I go to bed early. I am not single. My husband came here before me, and I came to him. He is here now. We were married four months before he came here.

ALEXANDRIA (her x mark) PIQUOT.

Witness: M. C. REIDELL.

Subscribed and sworn to before me at Culebra this 18th day of January, A. D. 1906.

M. C. REIDELL, *Municipal Judge*.

CANAL ZONE, *Isthmus of Panama*, ss:

Ophelia Horton, first being duly sworn, on oath says: I am from Martinique; came about two and one-half months ago. I came because I wanted work, as I heard there was plenty. Mr. Lavenel told me. I am engaged in washing and ironing. I am doing fairly well. I have good quarters. I stay in camp at night. I am satisfied with things here. I am single. This house in camp is guarded by a watchman and police. I go to sleep early and don't see them, but understand that is so.

OPHELIA (her x mark) HORTON.

Witness: M. C. REIDELL.

Subscribed and sworn to before me at Culebra this 18th day of January, A. D. 1906.

M. C. REIDELL, *Municipal Judge*.

CANAL ZONE, *Isthmus of Panama*, ss:

Antonio Dennis, first being duly sworn, on oath says: I am from Martinique; came here about two and one-half months. I am married now about three years. My husband came before I did, and I came to him. I work out as a servant to help him along.

ANTONIO (her x mark) DENNIS.

Witness: M. C. REIDELL.

Subscribed and sworn to before me at Culebra this 18th day of January, A. D. 1906.

M. C. REIDELL, *Municipal Judge*.

CANAL ZONE, *Isthmus of Panama*, ss:

Julia Alfred, being first duly sworn, on oath says: I am from Martinique. I am married and came here to join my husband, who came before me. I was married in Martinique five years ago, and I now live with my husband in Enterprise, Canal Zone.

JULIA (her x mark) ALFRED.

Witness: M. C. REIDELL.

Subscribed and sworn to before me at Enterprise, Canal Zone, this 18th day of January, A. D. 1906.

M. C. REIDELL, *Municipal Judge*.

CANAL ZONE, *Isthmus of Panama*, ss:

Francuise Laulow, being first duly sworn, on oath says: I am from Martinique. I am single, and have been here about two and one-half months. I was told by Mr. Lavenel, in Martinique, that I could get plenty of work and good wages here, and I came here to work. I am now working with the family of Joseph Gastan, as a domestic. I live and sleep in the same house. I have been living with this family since I arrived here.

FRANCUISE (her x mark) LAULOW.

Witness: M. C. REIDELL.

Subscribed and sworn to before me at Enterprise, Canal Zone, this 18th day of January, A. D., 1906.

M. C. REIDELL, *Municipal Judge*.

CANAL ZONE, *Isthmus of Panama*, ss:

Alfonce Ustach, being first duly sworn, on oath says: I am from Martinique. I have been here about two and one-half months. I am single, and came here to get work. Have been informed by newspapers and American agent in Martinique that I could get plenty of work and good wages here. I am working now as a washerwoman at the hotel in Culebra, and my treatment and wages are all right, and I don't want to leave. I live in camp with other single Martinique women, and a watchman is over us all night, who allows no one to leave or enter our quarters after 8.30 p. m. I am 69 years

old. The morals of all the women in camp are good. They work hard during the day and retire early at night. Sunday night we stay up until 9 p. m.

ALFONCE (her x mark) USTACH.

Witness: M. C. REIDELL.

Subscribed and sworn to before me at Culebra, Canal Zone, this 18th day of January, A. D. 1906.

M. C. REIDELL, *Municipal Judge.*

CANAL ZONE, *Isthmus of Panama, ss:*

Urena J. Louis, first being duly sworn, on oath says: I am from Martinique. Came here with all the others about two and one-half months ago. I came to get work, and I heard there was plenty here. I have found work, and am well paid. I am single, and live with the others in the camp at night, which is guarded at night. I am well treated. I don't care to return to Martinique, as I am satisfied.

URENA J. (her x mark) LOUIS.

Witness: M. C. REIDELL.

Subscribed and sworn to before me at Culebra this 18th day of January, A. D. 1906.

M. C. REIDELL, *Municipal Judge.*

CANAL ZONE, *Isthmus of Panama, ss:*

Theodose Marmele, first being duly sworn, on oath says: I am from Martinique; came here about two and one-half months. I heard there was plenty of work and good wages and I came. I am now working at the hotel here. I am single. I am well treated and make good wages and I am satisfied. Am well pleased. I am in the camp at night. There is a watchman on duty there at night.

THEODOSE (her x mark) MARMELE.

Witness: M. C. REIDELL.

Subscribed and sworn to before me at Culebra this 18th day of January, A. D. 1906.

M. C. REIDELL, *Municipal Judge.*

CANAL ZONE, *Isthmus of Panama, ss:*

Hermance Suvena, first being duly sworn, on oath says: I am from Martinique; came here about two and one-half months. Was told by the agent there that there was plenty of work and good wages here. I am not married. I am working here at the hotel and am doing very well.

HERMANCE (her x mark) SUVENA.

Witness: M. C. REIDELL.

Subscribed and sworn to before me at Culebra this 18th day of January, A. D. 1906.

M. C. REIDELL, *Municipal Judge.*

CANAL ZONE, *Isthmus of Panama, ss:*

Adeline Balance, first being duly sworn, on oath says: I am from Martinique, and here two and one-half months. I came here to work. I was told there was plenty of work and good wages. I am not

married. I am working as a servant at hotel here. I stay at the camp at night, where there is a guard or watchman at night and police also.

ADELINE (her x mark) BALANCE.

Witness: M. C. REIDELL.

Subscribed and sworn to before me at Culebra, Canal Zone, this 18th day of January, A. D. 1906.

M. C. REIDELL, *Municipal Judge*.

CANAL ZONE, *Isthmus of Panama*, ss:

Justine Papie, first being duly sworn, on oath says: I am from Martinique; came here about two and one-half months. I came here to work as I heard there was plenty and good wages. I am working now at the hotel and am satisfied with my treatment. I am single. I stay in the camp at night, where there is a guard and policeman at night.

JUSTINE (her x mark) PAPIE.

Witness: M. C. REIDELL.

Subscribed and sworn to before me at Culebra this 18th day of January, A. D. 1906.

M. C. REIDELL, *Municipal Judge*.

CANAL ZONE, *Isthmus of Panama*, ss:

Anselle Louissie, first being duly sworn, on oath says: I am from Martinique and came here in search of work, as I heard there was plenty and good wages. I am single. I work at the hotel here and get good wages. I am single and I am satisfied at my treatment here.

ANSELLE (her x mark) LOUISSIE.

Witness: M. C. REIDELL.

Subscribed and sworn to before me at Culebra this 18th day of January, A. D. 1906.

M. C. REIDELL, *Municipal Judge*.

CANAL ZONE, *Isthmus of Panama*, ss:

Louise Marrie, first being duly sworn, on oath says: I came here about two and one-half months ago from Martinique to work here, as I heard there was plenty of work and good wages. I am not married. I work as chambermaid at the hotel. I stay in the camp at night. There is a watchman and policeman at the camp at night. I am content here.

LOUISE (her x mark) MARRIE.

Witness: M. C. REIDELL.

Subscribed and sworn to before me at Culebra this 18th day of January, A. D. 1906.

M. C. REIDELL, *Municipal Judge*.

CANAL ZONE, *Isthmus of Panama*, ss:

Amant Casteel first being duly sworn, on oath says: I am from Martinique to this place about two and one-half months. I am single. I came here because I heard there was plenty of work and good

wages, and have been at work here at the hotel. I am doing very well. I stay in the camp at night, which is guarded by both a watchman and police.

AMANT (her x mark) CASTEEL.

Witness: M. C. REIDELL.

Subscribed and sworn to before me at Culebra this 18th day of January, A. D. 1906.

M. C. REIDELL, *Municipal Judge.*

CANAL ZONE, *Isthmus of Panama, ss:*

Therese Colete, first being duly sworn, on oath says: Am from Martinique and been here two and one-half months. I came here to work, as I heard there was plenty of it. I saw it in the newspapers and an American told me I could get good wages. I have been at work here at the hotel and get fair wages. I am content. I stay in the camp, which is guarded by a watchman and police. The doors are closed at about 8.30 at night.

THERESE COLETE.

Subscribed and sworn to before me at Culebra this 18th day of January, A. D. 1906.

M. C. REIDELL, *Municipal Judge.*

CANAL ZONE, *Isthmus of Panama, ss:*

Madlen Marie, first being duly sworn, on oath says: I am from Martinique. I have been here about two and one-half months. I was married in Martinique about one year ago. My husband came here before me, and I came to join him. He is a laborer on the canal, and I live with him at Rio Grande.

MADLEN (her x mark) MARIE.

Witness: M. C. REIDELL.

Subscribed and sworn to before me at Culebra, Canal Zone, this 18th day of January, A. D. 1906.

M. C. REIDELL, *Municipal Judge.*

CANAL ZONE, *Isthmus of Panama, ss:*

Atinice Nosie, first being duly sworn, on oath says: I am from Martinique. I have been here about two and one-half months. I am married to a Martiniquean. Have been married and living with him for six years. I was married in Martinique. My husband came here before me, and I came to join. I am living with him now at Culebra, Canal Zone.

ATINICE (her x mark) NOSIE.

Witness: M. C. REIDELL.

Subscribed and sworn to before me at Culebra, Canal Zone, this 18th day of January, A. D. 1906.

M. C. REIDELL, *Municipal Judge.*

CANAL ZONE, *Isthmus of Panama, ss:*

Leonie Janepiere, first being duly sworn, on oath says: I am from Martinique. I am single. I have been here about two and one-half months. I was informed by Mr. Lavenel in Martinique that I could



get plenty of work and good wages here. I came here to work. I am now working for an American family in Culebra, Canal Zone, as a domestic servant.

LEONIE (her x mark) JANEPIERE.

Witness: M. C. REIDELL.

Subscribed and sworn to before me at Culebra, Canal Zone, this 18th day of January, A. D. 1906.

M. C. REIDELL, *Municipal Judge.*

*CANAL ZONE, Isthmus of Panama, ss:*

Acelia Barray, first being duly sworn, on oath says: I am from Martinique. I am single and have been here about two and one-half months. I was informed by the newspapers and Mr. Lavenel that I could get plenty of work and good wages here, so I came to work. I am now working as a chambermaid at the hotel in Culebra, Canal Zone.

ACELIA BARRAY.

Subscribed and sworn to before me at Culebra, Canal Zone, this 18th day of January, A. D. 1906.

M. C. REIDELL, *Municipal Judge.*

*CANAL ZONE, Isthmus of Panama, ss:*

Adrianne J. Louis, first being duly sworn, on oath says: I am from Martinique. I am single, and came here to work for the Government, having been informed by the newspapers that I could get work and good wages here. I did not see Mr. Lavenel. I am now working in the hotel at Culebra, Canal Zone, as chambermaid. I am making good wages and like it here.

ADRIANNE (her x mark) J. LOUIS.

Witness: M. C. REIDELL.

Subscribed and sworn to before me at Culebra, Canal Zone, this 18th day of January, A. D. 1906.

M. C. REIDELL, *Municipal Judge.*

*CANAL ZONE, Isthmus of Panama, ss:*

L. Jane Louis, first being duly sworn, on oath says: I am from Martinique. I have been here about two and one-half months. I am single. I first saw in newspapers that I could get work here, and then saw Mr. Setton, who told me the same. I came here to work, and am now working as chambermaid at the hotel in Culebra, Canal Zone. I am making good wages, and like it.

L. JANE (her x mark) LOUIS.

Witness: M. C. REIDELL.

Subscribed and sworn to before me at Culebra, Canal Zone, this 18th day of January, A. D. 1906.

M. C. REIDELL, *Municipal Judge.*

CANAL ZONE, *Isthmus of Panama*, ss:

Marie Vulnon, first being duly sworn, on oath says: I am from Martinique. I am single and came here to work, having seen in newspapers that I could get some. I was also told by an American in Martinique the same. I have been here about two and one-half months. I am now working as chambermaid in the hotel at Culebra, Canal Zone. I am making good wages and have no complaint to make.

MARIE (her x mark) VULNON.

Witness: M. C. REIDELL.

Subscribed and sworn to before me at Culebra, Canal Zone, this 18th day of January, A. D. 1906.

M. C. REIDELL, *Municipal Judge*.

CANAL ZONE, *Isthmus of Panama*, ss:

Margarete P. Pole, first being duly sworn, on oath says: I am from Martinique. I am single and have been here about two and one-half months. I came here to work, having been informed that I could get plenty of work and good wages through newspapers. I am now working as chambermaid at the hotel in Culebra. I can't make as much money in Martinique as I can here, and I like it. I sleep in camp with other women. We have a watchman, and no one can leave or enter our quarters after 8.30 p. m.

MARGARETE (her x mark) P. POLE.

Witness: M. C. REIDELL.

Subscribed and sworn to before me at Culebra, Canal Zone, this 18th day of January, A. D. 1906.

M. C. REIDELL, *Municipal Judge*.

CANAL ZONE, *Isthmus of Panama*, ss:

Albertine Vadley, first being duly sworn, on oath says: I am from Martinique. I am single. I came here to work, because I saw in newspaper I could get good wages and plenty of work here. I am now working as chambermaid in the hotel at Culebra. I get good wages and like it. I live in camp with other single Martinique women, and no one is allowed to go in or out of our quarters at night.

ALBERTINE (her x mark) VADLEY.

Witness: M. C. REIDELL.

Subscribed and sworn to before me at Culebra, Canal Zone, this 18th day of January, A. D. 1906.

M. C. REIDELL, *Municipal Judge*.

CANAL ZONE, *Isthmus of Panama*, ss:

I, Victoria Jane Joseph, first being duly sworn, on oath say: I am from Martinique and have been here about two and one-half months. I was married in Martinique six years ago. My husband came here

one and a half months before me, and I came to join him. I live with my husband, who works as a carpenter in building department in Cunette, Canal Zone.

VICTORIA (her x mark) JANE JOSEPH.

Witness: RODOLFO AYARZAT.

Subscribed and sworn to before me at Empire, Canal Zone, this 18th day of January, A. D. 1906.

RODOLFO AYARZAT, *Municipal Judge.*

CANAL ZONE, *Isthmus of Panama, ss:*

I, Damshale Alphred, first being duly sworn, on oath say: I am from Martinique and have been here about two and one-half months. I was married in Martinique seven years ago and came here with my husband, who works on the canal. I live with him in Cunette, Canal Zone.

DAMSHALE (her x mark) ALPHRED.

Witness: RODOLFO AYARZAT.

Subscribed and sworn to before me at Empire, Canal Zone, this 18th day of January, A. D. 1906.

RODOLFO AYARZAT, *Municipal Judge.*

CANAL ZONE, *Isthmus of Panama, ss:*

I, Matile Elouice, first being duly sworn, on oath say: I am from Martinique and have been here about two and one-half months. I was married in Martinique fourteen months before I left and came here with my husband, who works in Culebra for the Canal Commission in the track department. I live with my husband at Cunette, Canal Zone.

MATILE (her x mark) ELOUICE.

Witness: RODOLFO AYARZAT.

Subscribed and sworn to before me at Empire, Canal Zone, this 18th day of January, A. D. 1906.

RODOLFO AYARZAT, *Municipal Judge.*

CANAL ZONE, *Isthmus of Panama, ss:*

I, Louis Ponalaie, first being duly sworn, on oath say: I am from Martinique, and have been here about two and one-half months. I was married sixteen years ago in Martinique and came here with my husband, who works on the canal, but is now sick in the hospital. I live with him at Cunette, Canal Zone.

LOUIS (her x mark) PONALAIE.

Witness: RODOLFO AYARZAT.

Subscribed and sworn to before me at Empire, Canal Zone, this 18th day of January, A. D. 1906.

RODOLFO AYARZAT, *Municipal Judge.*

CANAL ZONE, *Isthmus of Panama*, ss:

I, Ellen Vadlay, first being duly sworn, on oath say: I am from Martinique, and have been here about two and one-half months. I was married in Martinique eight years ago, and came here with my husband, who works in track department on the canal. I live with him in Cunette, Canal Zone.

ELLEN (her x mark) VADLAY.

Witness: RODALFO AYARZAT.

Subscribed and sworn to before me at Empire, Canal Zone, this 18th day of January, A. D. 1906.

RODALFO AYARZAT, *Municipal Judge*.

CANAL ZONE, *Isthmus of Panama*, ss:

I, Pauline Marie Francie, first being duly sworn, on oath say: I am from Martinique, and have been here about two and one-half months. I was married in Martinique two months before I came here, and I came with my husband, who works as a shoemaker in Empire, Canal Zone.

PAULINE (her x mark) MARIE FRANCIE.

Witness: RODALFO AYARZAT.

Subscribed and sworn to before me at Empire, Canal Zone, this 18th day of January, A. D. 1906.

RODALFO AYARZAT, *Municipal Judge*.

CANAL ZONE, *Isthmus of Panama*, ss:

I, Bluempia Messon, first being duly sworn, on oath say: I am from Martinique. I have been here about two and one-half months. I was informed by Mr. Lavenel that I could get plenty of work here, and I came here for that purpose. I am not working now, as I have fever. Before I was taken sick I worked as laundress in a hotel at Empire.

BLUEMPIA (her x mark) MESSON.

Witness: RODALFO AYARZAT.

Subscribed and sworn to before me at Empire, Canal Zone, this 18th day of January, A. D. 1906.

RODALFO AYARZAT, *Municipal Judge*.

CANAL ZONE, *Isthmus of Panama*, ss:

Buenett Kenegon, first being duly sworn, on oath says: I am from Martinique. I was married in Martinique six years ago and came here about two and one-half months ago with my husband, who is now working in track department for the canal. I live with him at Cunette, Canal Zone.

BUENETT (her x mark) KENEGON.

Witness: RODALFO AYARZAT.

Subscribed and sworn to before me at Empire, Canal Zone, this 18th day of January, A. D. 1906.

RODALFO AYARZAT, *Municipal Judge*.

CANAL ZONE, *Isthmus of Panama*, ss:

Catherine Maxemen, first being duly sworn, on oath says: I am from Martinique, and have been here about two and one-half months. I was married in Martinique about two years ago and came here with my husband, who is now working in the track department for the canal. I live with him at Cunette, Canal Zone.

CATHERINE (her x mark) MAXEMEN.

Witness: RODALFO AYARZAT.

Subscribed and sworn to before me at Empire, Canal Zone, this 18th day of January, A. D. 1906.

RODALFO AYARZAT, *Municipal Judge*.

CANAL ZONE, *Isthmus of Panama*, ss:

Jueilana Carmalin, first being duly sworn, on oath says: I am from Martinique. I have been here about two and one-half months. I was married in Martinique two and one-half months before my husband left and I came here to join my husband, who came ahead of me. My husband is working as a blacksmith in the machine shop for the Isthmian Canal Commission. I live with him at Cunette, Canal Zone.

JUEILANA (her x mark) CARMALIN.

Witness: RODALFO AYARZAT.

Subscribed and sworn to before me at Empire, Canal Zone, this 18th day of January, A. D. 1906.

RODALFO AYARZAT, *Municipal Judge*.

CANAL ZONE, *Isthmus of Panama*, ss:

Marcia Lando, first being duly sworn, on oath says: I am from Martinique. I was informed by Mr. Lavenel that I could get plenty of work here and came for that purpose. I am now working as kitchen servant at the hotel in Empire. When I first arrived I was sick with fever, but since I got well I have been working at above place.

MARCIA (her x mark) LANDO.

Witness: RODALFO AYARZAT.

Subscribed and sworn to before me at Empire, Canal Zone, this 18th day of January, A. D. 1906.

RODALFO AYARZAT, *Municipal Judge*.

CANAL ZONE, *Isthmus of Panama*, ss:

Sesraphine Fesan, first being duly sworn, on oath says: I am from Martinique. I was married in Martinique five years ago. My husband came first and I came later to join him, and am now living with him at Cunette, Canal Zone.

SESRAPHINE (her x mark) FESAN.

Witness: RODALFO AYARZAT.

Subscribed and sworn to before me at Empire, Canal Zone, this 18th day of January, A. D. 1906.

RODALFO AYARZAT, *Municipal Judge*.

CANAL ZONE, *Isthmus of Panama, ss:*

Jillui Richha, first being duly sworn, on oath says: I am from Martinique. I was married in Martinique four years ago. My husband's name is Theodiele Richha, who works on the canal as a laborer. Jane Ortancia came on the same ship, and lives with my husband and myself.

JILLUI (her x mark) RICHHA.

Witness: RODALFO AYARZAT.

Subscribed and sworn to before me at Empire, Canal Zone, this 18th day of January, A. D. 1906.

RODALFO AYARZAT, *Municipal Judge.*

CANAL ZONE, *Isthmus of Panama, ss:*

I, Jane Ortancia, first being duly sworn, on oath says: I am from Martinique, and have been here about two and one-half months and am single. I live with a friend from Martinique, who lives with her husband. My friend's husband came on the same boat with us and I came to live with them and work on the Zone. My friend's name is Jillui Richha, and her husband's name is Theodiele Richha.

JANE (her x mark) ORTANCIA.

Witness: RODALFO AYARZAT.

Subscribed and sworn to before me at Empire, Canal Zone, this 18th day of January, A. D. 1906.

RODALFO AYARZAT, *Municipal Judge.*

CANAL ZONE, *Isthmus of Panama, ss:*

Juilcia Augustine, first being duly sworn, on oath says: I am from Martinique, and have been here about two and one-half months. I am single and came here to get work, having been informed by Mr. Lavenel in Martinique that I could get plenty of work here. I am now working as a washerwoman at Cunette, Canal Zone, where I live.

JUILCIA (her x mark) AUGUSTINE.

Witness: RODALFO AYARZAT.

Subscribed and sworn to before me at Empire, Canal Zone, this 18th day of January, A. D. 1906.

RODALFO AYARZAT, *Municipal Judge.*

CANAL ZONE, *Isthmus of Panama, ss:*

Obertine Noremie, first being duly sworn, on oath says: I am from Martinique. Have been here about two and one-half months, and am single, and I live with no one. For a livelihood I work at the hotel in Empire, and live in Cunette, Canal Zone. At first I washed clothes, but now am employed at the hotel. I was informed by Mr. Lavenel that I could get plenty of work here, and came here to work.

OBERTINE (her x mark) NOREMIE.

Witness: RODALFO AYARZAT.

Subscribed and sworn to before me at Empire, Canal Zone, this 18th day of January, A. D. 1906.

RODALFO AYARZAT, *Municipal Judge.*

CANAL ZONE, *Isthmus of Panama*, ss:

Jane Pratrice, first being duly sworn, on oath says: I am from Martinique. I was married in Martinique three months before my husband came here. I was informed by the American agent in Martinique that I could come here and join my husband and get plenty of work. I came later and joined him, and am now living with him at Cunette, Canal Zone. My husband is employed in the track department on the canal. The agent was Mr. Lavenel.

JANE (her x mark) PRATRICE.

Witness: RODALFO AYARZAT.

Subscribed and sworn to before me at Empire, Canal Zone, this 18th day of January, A. D. 1906.

RODALFO AYARZAT, *Municipal Judge*.

CANAL ZONE, *Isthmus of Panama*, ss:

Jane Alfoncel, being first duly sworn, on oath says: I am from Martinique. I am single, and have been here about two and one-half months. I was informed by Mr. Lavenel that I could get plenty of work and good wages here, such as washing, cooking, and general housework. I am now working as a washerwoman, and living at Cunette, Canal Zone. I do not live with a man or anyone else. I live alone. I work every day.

JANE (her x mark) ALFONCE.

Witness: RODALFO AYARZAT.

Subscribed and sworn to before me at Empire, Canal Zone, this 18th day of January, 1906.

RODALFO AYARZAT, *Municipal Judge*.

CANAL ZONE, *Isthmus of Panama*, ss:

Louise Paulin, first being duly sworn, on oath says: I am from Martinique. I was married in Martinique two years ago. My husband came here to work, and I came later to join him. I now live with him at Empire, Canal Zone. He is a laborer on the canal.

LOUISE (her x mark) PAULIN.

Witness: M. C. REIDELL.

Subscribed and sworn to before me at Empire, Canal Zone, this 18th day of January, A. D. 1906.

M. C. REIDELL, *Municipal Judge*.

CANAL ZONE, *Isthmus of Panama*, ss:

Louise Leismoha, being first duly sworn, on oath says: I am from Martinique. Came here about two and one-half months ago with the others. I am single. I am working here in the Empire Hotel as helper in the kitchen. Mr. Lavenel and others told me there was work both in hotels and along the line, and since coming here have been working at the hotel.

LOUISE (her x mark) LEISMOHA.

Witness: M. C. REIDELL.

Subscribed and sworn to before me at Empire, Canal Zone, this 18th day of January, A. D. 1906.

M. C. REIDELL, *Municipal Judge*.

CANAL ZONE, *Isthmus of Panama*, ss:

Pheons Anie Romohnan, being first duly sworn, on oath says: I am a Martiniquan, and came here about two and one-half months ago with all the others. I came with my husband from Martinique. He is a laborer, and I do washing and ironing. I am satisfied with the place.

PHEONS ANIE (her x mark) ROMOHNAN.

Witness: M. C. REIDELL.

Subscribed and sworn to before me, at Empire, Canal Zone, this 18th day of January, A. D. 1906.

M. C. REIDELL, *Municipal Judge*.

CANAL ZONE, *Isthmus of Panama*, ss:

I, Katherine Ernest, first being duly sworn, on oath say: I am from Martinique. I was told by Mr. Lavenel in Martinique that I could find plenty of work here, and I came for that purpose. I am now working as a laundress. I wash and iron for my living. I came with my husband from Martinique, and live with him at Empire, Canal Zone, and we are both saving money.

KATHERINE (her x mark) ERNEST.

Witness: M. C. REIDELL.

Subscribed and sworn to before me, at Empire, Canal Zone, this 18th day of January, A. D. 1906.

M. C. REIDELL, *Municipal Judge*.

CANAL ZONE, *Isthmus of Panama*, ss:

I, Lucianne Lucien, first being duly sworn, on oath say: I am from Martinique. I have been here about two and one-half months. I was married in Martinique three years ago. My husband was offered a position here by the American agent in Martinique, and I was informed that I could join him later. My husband came first and is a laborer on canal. I came later to join him. I am now living with my husband in Empire and doing odd work, such as washing, ironing, etc., to help him along.

LUCIANNE LUCIEN.

Subscribed and sworn to before me, at Empire, Canal Zone, this 18th day of January, A. D. 1906.

M. C. REIDELL, *Municipal Judge*.

CANAL ZONE, *Isthmus of Panama*, ss:

Vuss Marie, being first duly sworn, on oath says: I am from Martinique. Came here about two and one-half months ago. I came to my husband, who left Martinique before I did. I am washing and ironing, and my husband is a laborer. I am quite satisfied to be here.

VUSS (her x mark) MARIE.

Witness: M. C. REIDELL.

Subscribed and sworn to before me, at Empire, this 18th day of January, A. D. 1906.

M. C. REIDELL, *Municipal Judge*.



CANAL ZONE, *Isthmus of Panama*, ss:

I, Hermine Paulain, first being duly sworn, on oath say: I am from Martinique, and have been here about two and one-half months. I am single and live by myself. I came here to get work, having been told by Mr. Lavenel in Martinique that I could get work here. I now work as a washerwoman and make about \$20 Panama currency per month.

HERMINE PAULAIN.

Subscribed and sworn to before me at Gorgona, Canal Zone, this 19th day of January, A. D. 1906.

CELEDANIO ISAZA, *Municipal Judge*.

CANAL ZONE, *Isthmus of Panama*, ss:

I, Denise Silma, first being duly sworn, on oath say: I am from Martinique; have been here about two and one-half months, and am single. I came here to work, having been told I could get plenty of work here. I now work as washerwoman and live alone by myself. I make good wages and like it.

DENISE (her x mark) SILMA.

Witness: CELEDANIO ISAZA.

Subscribed and sworn to before me at Gorgona, Canal Zone, this 19th day of January, A. D. 1906.

CELEDANIO ISAZA, *Municipal Judge*.

CANAL ZONE, *Isthmus of Panama*, ss:

I, Teolida St. Louis, first being duly sworn, on oath say: I am from Martinique. I have been here about two and one-half months. I am single. I came here to get work because Mr. Lavenel told me I could get work and good wages here. I am now working as a washerwoman and earn my living in this way. I live with another single Martinique woman.

TEOLIDA (her x mark) ST. LOUIS.

Witness: CELEDANIO ISAZA.

Subscribed and sworn to before me at Gorgona, Canal Zone, this 19th day of January, A. D. 1906.

CELEDANIO ISAZA, *Municipal Judge*.

CANAL ZONE, *Isthmus of Panama*, ss:

Pauline Fage, first being duly sworn, on oath says: I am from Martinique; have been here about two and one-half months. I am married. I was married in Martinique three years ago and came here with my husband and now live with him at Gorgona, Canal Zone.

PAULINE (her x mark) FAGE.

Witness: CELEDANIO ISAZA.

Subscribed and sworn to before me at Gorgona, Canal Zone, this 19th day of January, A. D. 1906.

CELEDANIO ISAZA, *Municipal Judge*.

CANAL ZONE, *Isthmus of Panama*, ss:

I, Amie Safargue, first being duly sworn, on oath say: I am from Martinique, and have been here about two and one-half months. I am single. I came here to get work, having been told by Mr. Lavenel in Martinique that I could get work and good wages. I am now working as cook for Mr. Dumanoir and family.

AMIE (her x mark) SAFARGUE.

Witness: CELEDANIO ISAZA.

Subscribed and sworn to before me at Gorgona, Canal Zone, this 19th day of January, A. D. 1906.

CELEDANIO ISAZA, *Municipal Judge*.

CANAL ZONE, *Isthmus of Panama*, ss:

I, Sedonie Labessiere, first being duly sworn, on oath say: I am from Martinique, and have been here about two and one-half months. I am single, and came here to get work because Mr. Lavenel told me in Martinique I could get work. I am now working as cook and laundress in the family of Charles Murdock, at Gorgona, Canal Zone.

SEDONIE (her x mark) LABESSIERE.

Witness: CELEDANIO ISAZA.

Subscribed and sworn to before me at Gorgona, Canal Zone, this 19th day of January, A. D. 1906.

CELEDANIO ISAZA, *Municipal Judge*.

CANAL ZONE, *Isthmus of Panama*, ss:

I, Irene Nica, first being duly sworn, on oath say: I am from Martinique, and have been here about two and one-half months. I was married in Martinique two years ago, and came here to join my husband, who came before. I am now living with my husband in Gorgona, Canal Zone.

IRENE (her x mark) NICA.

Witness: CELEDANIO ISAZA.

Subscribed and sworn to before me at Gorgona, Canal Zone, this 19th day of January, A. D. 1906.

CELEDANIO ISAZA, *Municipal Judge*.

CANAL ZONE, *Isthmus of Panama*, ss:

Edualice Chantelle; first being duly sworn, on oath says: I am from Martinique; have been here about two and one-half months. I am married. Was married in Martinique three years ago, and came here to join my husband, who came before me. He works on the canal, and I live with him at Gorgona, Canal Zone.

EDUALICE (her x mark) CHANTELLE.

Witness: CELEDANIO ISAZA.

Subscribed and sworn to before me at Gorgona, Canal Zone, this 19th day of January, A. D. 1906.

CELEDANIO ISAZA, *Municipal Judge*.

CANAL ZONE, *Isthmus of Panama*, ss:

Bernadotte Eleanor, first being duly sworn, on oath says: I am from Martinique, and have been here about two and a half months. I was married in Martinique one and a half years ago and came here to join my husband, who came before me. He works on the canal, and I now live with him at Gorgona, Canal Zone.

BERNADETTE ELEONORE.

Subscribed and sworn to before me at Gorgona, Canal Zone, this 19th day of January, A. D. 1906.

CELEDANIO ISAZA, *Municipal Judge*.

CANAL ZONE, *Isthmus of Panama*, ss:

Constnace Nimaise, first being duly sworn, on oath says: I am from Martinique; have been here about two and a half months. I was married in Martinique about three years ago, and came here to join my husband, who is working on the canal. I live with him at Gorgona, Canal Zone.

CONSTNACE NIMAISE.

Subscribed and sworn to before me at Gorgona, Canal Zone, this 19th day of January, A. D. 1906.

CELEDANIO ISAZA, *Municipal Judge*.

CANAL ZONE, *Isthmus of Panama*, ss:

Finez Willy, first being duly sworn, on oath says: I am from Martinique, and have been here about two and one-half months. I was married in Martinique about one and one-half years ago and came here to join my husband, who came before me. I lived with him until his death. I am now working as cook in a restaurant, and live in said restaurant.

FINEZ (her x mark) WILLY.

Witness: CELEDANIO ISAZA.

Subscribed and sworn to before me at Gorgona, Canal Zone, this 19th day of January, A. D. 1906.

CELEDANIO ISAZA, *Municipal Judge*.

CANAL ZONE, *Isthmus of Panama*, ss:

Clotilde Simon, first being duly sworn, on oath says: I am from Martinique; have been here about two and one-half months. I was married in Martinique about one year ago, and came here to join my husband, who came before me. He works on the canal, and I live with him at Bas Matachin, Canal Zone.

CLOTILDE (her x mark) SIMON.

Witness: CELEDANIO ISAZA.

Subscribed and sworn to before me at Gorgona, Canal Zone, this 19th day of January, A. D. 1906.

CELEDANIO ISAZA, *Municipal Judge*.

CANAL ZONE, *Isthmus of Panama, ss:*

Louise Figaro, first being duly sworn, on oath says: I am from Martinique; have been here about two and one-half months. I was married in Martinique about two years ago and came here to join my husband, who came before me. I am now living with him at Gorgona, Canal Zone.

LOUISE FIGARO.

Subscribed and sworn to before me at Gorgona, Canal Zone, this 19th day of January, A. D. 1906.

CELEDANIO ISAZA, *Municipal Judge.*

CANAL ZONE, *Isthmus of Panama, ss:*

I, Luce Nordeau, first being duly sworn, on oath say: I am from Martinique, and have been here about two and one-half months. I am single and live by myself at Gorgona. I came here to get work, having been told I could get work here, and I am now working as a washerwoman, am making good wages, and am satisfied.

LUCE (her x mark) NORDEAU.

Witness: CELEDANIO ISAZA.

Subscribed and sworn to before me at Gorgona, Canal Zone, this 19th day of January, A. D. 1906.

CELEDANIO ISAZA, *Municipal Judge.*

CANAL ZONE, *Isthmus of Panama, ss:*

Satoute Miller, first being duly sworn, on oath says: I am from Martinique, and have been here about two and one-half months. I was married in Martinique about one and one-half years before we came here. I came with my husband and live with him. He came to get work, and now works as a laborer on the canal.

SATOUTE (her x mark) MILLER.

Witness: M. C. REIDELL.

Subscribed and sworn to before me at Bas Obispo, Canal Zone, this 19th day of January, A. D. 1906.

M. C. REIDELL, *Municipal Judge.*

CANAL ZONE, *Isthmus of Panama, ss:*

Antoinette Laonise, first being duly sworn, on oath says: I am from Martinique. I was married there seven years ago, and came here with my husband. If you send me back, he has got to go with me or I won't go. My husband works on the canal, and I do washing.

ANTOINETTE (her x mark) LAONISE.

Witness: M. C. REIDELL.

Subscribed and sworn to before me at Bas Obispo, Canal Zone, this 19th day of January, A. D. 1906.

M. C. REIDELL, *Municipal Judge.*

**CANAL ZONE, Isthmus of Panama, ss:**

Clement Gerald, first being duly sworn, on oath says: I am from Martinique, and was married there one year ago. I came here with my husband about two and one-half months ago. He works as a painter, and I do domestic work in the family of Mr. Davis, and live with my husband at Bas Obispo.

CLEMENT (her x mark) GERALD.

Witness: M. C. REIDELL.

Subscribed and sworn to before me, at Bas Obispo, Canal Zone, this 19th day of January, A. D. 1906.

M. C. REIDELL, *Municipal Judge.*

**CANAL ZONE, Isthmus of Panama, ss:**

Jani Senaie, first being duly sworn, on oath says: I am from Martinique, and was married there four years ago, and came here with my husband about two and one-half months ago. He works on the Canal, and I take in washing. We live together at Bas Obispo.

JANI (her x mark) SENAIE.

Witness: M. C. REIDELL.

Subscribed and sworn to before me, at Bas Obispo, Canal Zone, this 19th day of January, A. D. 1906.

M. C. REIDELL, *Municipal Judge.*

**CANAL ZONE, Isthmus of Panama, ss:**

Mary Angeline, first being duly sworn, on oath says: I am from Martinique. I was married in Martinique nine years ago, and came here with my husband. He works on the canal, and I work as a domestic in the house of the doctor at Bas Obispo. I live with my husband at Bas Obispo.

MARY (her x mark) ANGELINE.

Witness: M. C. REIDELL.

Subscribed and sworn to before me at Bas Obispo, Canal Zone, this 19th day of January, A. D. 1906.

M. C. REIDELL, *Municipal Judge.*

**CANAL ZONE, Isthmus of Panama, ss:**

Suserine Johnbaptist, first being duly sworn, on oath says: I am from Martinique, and was married there eleven months ago. I came here with my husband, who works on the canal, and I take in washing. I live with him at Bas Obispo.

SUSERINE (her x mark) JOHNBAPTIST.

Witness: M. C. REIDELL.

Subscribed and sworn to before me at Bas Obispo, Canal Zone, this 19th day of January, A. D. 1906.

M. C. REIDELL, *Municipal Judge.*

CANAL ZONE, *Isthmus of Panama*, ss:

Philomen Philibert, first being duly sworn, on oath says: I am from Martinique. I was married there one year ago and came here with my husband, who works on the canal. I live with him at Bas Obispo and work as a laundress.

PHILOMEN (her x mark) PHILIBERT.

Witness: M. C. REIDELL.

Subscribed and sworn to before me at Bas Obispo, Canal Zone, this 19th day of January, A. D. 1906.

M. C. REIDELL, *Municipal Judge*.

CANAL ZONE, *Isthmus of Panama*, ss:

Felici Brillo, first being duly sworn, on oath says: I am from Martinique. I was married there four years ago, and came here with my husband about two and one-half months ago. He works on the canal at Bas Obispo, and I live with him and work out as a laundress to help him out.

FELICI (her x mark) BRILLO.

Witness: M. C. REIDELL.

Subscribed and sworn to before me at Bas Obispo, Canal Zone, this 19th day of January, A. D. 1906.

M. C. REIDELL, *Municipal Judge*.

CANAL ZONE, *Isthmus of Panama*, ss:

Luslee Lainte, first being duly sworn, on oath says: I am from Martinique. I was married there six years ago, and came here with my husband about two and one-half months ago. My husband works on the canal, and I live with him at Bas Obispo. I work as a domestic in an American family to help him.

LUSLEE LAINTE.

Subscribed and sworn to before me at Bas Obispo, Canal Zone, this 19th day of January, A. D. 1906.

M. C. REIDELL, *Municipal Judge*.

CANAL ZONE, *Isthmus of Panama*, ss:

Maria Josephine, first being duly sworn, on oath says: I am from Martinique. I was married there seven years ago, and came here with my husband about two and one-half months ago. He works on the canal, and I live with him at Bas Obispo, Canal Zone.

MARIA (her x mark) JOSEPHINE.

Witness: M. C. REIDELL.

Subscribed and sworn to before me at Bas Obispo, Canal Zone, this 19th day of January, A. D. 1906.

M. C. REIDELL, *Municipal Judge*.

CANAL ZONE, *Isthmus of Panama*, ss:

Geraldine Francis, first being duly sworn, on oath says: I am from Martinique. I was married there one and one-half years before my husband came here. He is working on the canal at Bas Obispo, and I am also working. He came before me, and I came later to join him. We now live together at Bas Obispo.

GERALDINE (her x mark) FRANCIS.

Witness: M. C. REIDELL.

Subscribed and sworn to before me at Bas Obispo, Canal Zone, this 19th day of January, A. D. 1906.

M. C. REIDELL, *Municipal Judge*.

CANAL ZONE, *Isthmus of Panama*, ss:

Taoiny Alois, first being duly sworn, on oath says: I am from Martinique. I was married in Martinique four years ago. My husband came here as a laborer two months before me, and I came about two and one-half months ago to join him, and now live with him. My husband is a foreman at Bas Obispo, and we live together.

TAOINY (her x mark) ALOIS.

Witness: M. C. REIDELL.

Subscribed and sworn to before me at Bas Obispo, Canal Zone, this 19th day of January, A. D. 1906.

M. C. REIDELL, *Municipal Judge*.

CANAL ZONE, *Isthmus of Panama*, ss:

Gabriel Paralo, first being duly sworn, on oath says: I am from Martinique, and came here with my husband about two and one-half months ago. I was married in Fort de France about three years ago. My husband works on the canal, and I live with him.

GABRIEL (her x mark) PARALO.

Witness: M. C. REIDELL.

Subscribed and sworn to before me at Bas Obispo, Canal Zone, this 19th day of January, A. D. 1906.

M. C. REIDELL, *Municipal Judge*.

CANAL ZONE, *Isthmus of Panama*, ss:

Celia Bouzin (Ambrosine), first being duly sworn, on oath says: I am from Martinique; have been here about two and one-half months. I was married in Martinique one year before I left. I came here with my husband, who came here to work and is now working on the canal as a laborer. I live with my husband, and am a domestic in the family of Mr. Davis. So far as I know everything is all right here.

CELIA AMBROSINE.

Subscribed and sworn to before me at Bas Obispo, Canal Zone, this 19th day of January, A. D. 1906.

M. C. REIDELL, *Municipal Judge*.

CANAL ZONE, *Isthmus of Panama, ss:*

Mirala Naomy, first being duly sworn, on oath says: I am from Martinique, and have been here about two and one-half months. I was married in Martinique six months before I left. I came here with my husband, who came here to get work and is now working on the canal as a laborer. I live with him at Bas Obispo and I help him by washing.

MIRALA (her x mark) NAOMY.

Witness: M. C. REIDELL.

Subscribed and sworn to before me at Bas Obispo, Canal Zone, this 19th day of January, A. D. 1906.

M. C. REIDELL, *Municipal Judge.*

CANAL ZONE, *Isthmus of Panama, ss:*

Mrs. Leona Louis, first being duly sworn, on oath says: Am from Martinique, coming here about two and one-half months ago. My husband died about five years ago, and, hearing that there was plenty of work here, came and have been employed ever since. I came here as a house servant in an American family. I get \$20 a month, with accommodation. I sleep with a cousin of mine, but is promised a room in the family soon. I am well satisfied. No one ever told me I had to have a husband.

Mrs. LEONA (her x mark) LOUIS.

Witness: M. C. REIDELL.

Subscribed and sworn to before me at Bas Obispo, this 19th day of January, A. D. 1906.

M. C. REIDELL, *Municipal Judge.*

CANAL ZONE, *Isthmus of Panama, ss:*

Mrs. Dane Barclay, first being duly sworn, on oath says: I am from Martinique, came here about two and one-half months ago, following my husband who came here two months previous. My husband is a foreman on canal work. I help him by doing washing and make fair wages. I am well satisfied and would not return to Martinique. Have been married over five years.

DANE (her x mark) BARCLAY.

Witness: M. C. REIDELL.

Subscribed and sworn to before me at Bas Obispo, Canal Zone, this 19th day of January, A. D. 1906.

M. C. REIDELL, *Municipal Judge.*

CANAL ZONE, *Isthmus of Panama, ss:*

Melanie Primeaux, first being duly sworn, on oath says: I am from Martinique. I have been here about two and one-half months. I am single. I came here to get work, having been informed by Mr. Lavenel in Martinique that I could get work and good wages here.



Since I have been here I have been sweeping the camps and keeping them clean. I work continuously. I live with another single Martinique woman in Bas Obispo, Canal Zone. Her name is Alcina Alcide.

MELANIE (her x mark) PRIMEAUX.

Witness: M. C. REIDELL.

Subscribed and sworn to before me at Bas Obispo, Canal Zone, this 19th day of January, A. D. 1906.

M. C. REIDELL, *Municipal Judge*.

CANAL ZONE, *Isthmus of Panama*, ss:

Alcina Alcide, first being duly sworn, on oath says: I am from Martinique. Came here about two and one-half months ago, on account of Mr. Lavenel telling me there was plenty of work and good wages, and since arriving here have been employed in an American family as house servant. I am single, and two of us sleep in a room furnished by labor and quarters department, with Melanie Primeaux. I get good wages—\$6 for every two weeks—and I am satisfied.

ALCINA (her x mark) ALCIDE.

Witness: M. C. REIDELL.

Subscribed and sworn to before me at ——— this 19th day of January, A. D. 1906.

M. C. REIDELL, *Municipal Judge*.

CANAL ZONE, *Isthmus of Panama*, ss:

R. A. Stewart, first being duly sworn, on oath says: I am employed as supervisor, branch of labor and quarters, and have under me the care and quartering of all Martinique women in my territory. All single women are quartered together; they all sleep in their quarters at night, and all work out during the day as washerwomen, chambermaids, etc. A watchman is placed over their quarters all night, and allows no one to go in or out after 8.30 o'clock at night. These women are very quiet and good workers and their conduct is good.

R. A. STEWART.

Subscribed and sworn to before me at Culebra, Canal Zone, this 18th day of January, A. D. 1906.

M. C. REIDELL, *Municipal Judge*.

CANAL ZONE, *Isthmus of Panama*, ss:

L. G. Smith, first being duly sworn, on oath says: I am employed as a general roundsman by the branch of labor and quarters, which department has charge of all laborers and Martinique women. All single Martinique women are quartered together in different camps on the Zone and watchmen are placed over these quarters who allow no one to come out or enter after 8.30 p. m. each night. These women work out during the day and sleep in their quarters every night.

L. G. SMITH.

Subscribed and sworn to before me at Culebra, Canal Zone, this 18th day of January, A. D. 1906.

M. C. REIDELL, *Municipal Judge*.

CANAL ZONE, *Isthmus of Panama*, ss:

I, Alfred Erimus, first being duly sworn, on oath say: I am employed as a watchman over Isthmian Canal Commission quarters, at Corozal, Canal Zone; at 9.30 p. m. each night the quarters in which the single Martinique women live are closed and none of them leave nor is anyone permitted to enter after this hour. The single women all live together in large, single-story building, and their conduct is good.

ALFRED ERIMUS.

Subscribed and sworn to before me at Corozal this 17th day of January, A. D. 1906.

M. C. REIDELL, *Municipal Judge*.

CANAL ZONE, *Isthmus of Panama*, ss:

I, Sydney Thompson, first being duly sworn, on oath say: I am a police officer in Canal Zone police force and am stationed at Corozal. The Martinique women who live here who are not married live in a large one-story building, and at 9 p. m. each night the doors are closed and no one but the women are in the building and they do not leave it after that hour nor does anyone enter said building after this hour. We have a watchman guarding the houses in this settlement all night.

SYDNEY THOMPSON, *Z. R. 130*.

Subscribed and sworn to before me at Corozal this 17th day of January, A. D. 1906.

M. C. REIDELL, *Municipal Judge*.



## LIST OF WITNESSES.

---

	Page.
Hon. William H. Taft, Secretary of War.....	3-17
John F. Stevens, chief engineer.....	19-95, 229-332
Poultney Bigelow, journalist.....	97-115
Maj. Hugh J. Gallagher, U. S. Army, purchasing agent.....	117-165
E. S. Benson, general auditor of Isthmian Canal Commission.....	167-227
Theodore P. Shonts, chairman Isthmian Canal Commission.....	333-492
R. P. Schwerin, vice-president and general manager Pacific Mail Steamship Company.....	493-541
John F. Wallace, civil engineer.....	543-694
Charles E. Magoon, governor of Panama Canal Zone.....	695-981



## INDEX TO VOLUME I.

### A.

#### Accounting department:

##### Accounts—

Page.

Audited in advance of payment. In the War Department the reverse is the case .....	192, 222, 223
For postage stamps, authority for passing .....	189
Of disbursing officer finally audited in War Department .....	193
Of disbursing officer incorrectly audited on Isthmus may be charged against him. Relief therefor can only be secured through Congress. ....	192 193, 223
On Isthmus only reaudited in Washington in special cases .....	189, 190
On Isthmus ultimately pass through Washington office .....	190, 191, 342
Of old Commission examined by Public Accountants' Corporation of New York .....	218, 340, 341
Of the Panama Railroad Company and Canal Commission so intermingled as to make one head to the different departments desirable. ....	215
Why duplicated .....	169, 190, 194
Appointments in, not under civil-service law and excepted .....	170, 221
Auditing department disorganized by yellow fever .....	171, 173, 221
Balances on books of old Commission .....	173
Board bills deducted on pay rolls .....	174, 226, 357, 862, 863
When not .....	620
Bureau of materials and supplies: Jurisdiction of, changed .....	170-174, 337, 338
Charges: How determined as between canal and railroad. 60, 63, 216, 376, 400, 404	
Contracts entered into, record of .....	221
Copy of auditor's report of fiscal affairs of Canal Commission for year ending June 30, 1905 .....	171-174
Copy of circular regarding organization of .....	168
Existing methods retard progress and increase cost .....	669, 670, 671
Legislation requested as to accounting methods .....	174
New system of accounting inaugurated July 1, 1905 .....	174, 190
Officials of, salaries and business experience .....	170, 216, 223, 224, 225, 226
Organization of .....	167-169, 171, 218, 340, 341
Original vouchers kept on Zone and copies sent to Washington .....	191
Panama Railroad Company accounting. (See Panama Railroad.)	
Statement of gross payments by Walker Commission; gross amounts of unpaid liabilities; amount paid in wages .....	219, 341, 917, 918, 919
Transactions of old and new Commission separated .....	171, 341
Resolution of Commission directing .....	173
Women from Martinique—	
Criticism of system admitting of misunderstanding relative to passing vouchers for transportation of .....	389-392

#### American Trade Developing Company:

A new institution .....	748
Cromwell, W. N., not a stockholder in .....	763
Does a banking business .....	746
Party to bankers' agreement .....	202, 204, 212, 763
United States no connection with .....	746
American Trading Company (Limited), located at Colon and Panama .....	349
Anderson, A., purchasing agent, 24 State street, New York .....	135
Appointments alleged due to political influence .....	157, 332
Architect, supervising, work of, etc. ....	587, 649, 655

## B.

Page

Balboa, value of.....	880
Bankers agreement. (See Monetary agreement.)	
Banks on Isthmus:	
Accounts audited in Washington for exchange money paid on the Isthmus for cashing checks.....	200, 212
Character of business transacted by.....	68, 672, 746, 747
Cromwell, W. N., connection with.....	412
In case of failure, not accountable under United States laws.....	200, 741
Monetary agreement with. (See Monetary agreement.)	
Basalt formations.....	33, 34, 35, 639, 640
Benson, E. S.:	
Allowed expenses for traveling in the interest of the Panama Railroad Company.....	217
As to official relations with the Panama Railroad Company and the Isthmian Canal Commission.....	215
Business experience of.....	170, 217, 224, 225
Expenses to the Isthmus paid by the Commission.....	217
General auditor of the Isthmian canal affairs and the Panama Railroad Company.....	167
Extent of responsibility for accounts of both.....	215, 221
Salary of, and also that of the Auditor for the War Department.....	217, 224
Secures status with the Panama Railroad Company under appointment by the president of the railroad company.....	216
Testimony of.....	167-227
Bids. (See Purchasing department.)	
Bigelow, Poultney, charges mismanagement of canal affairs:	
Alleged truthfulness of charges.....	793
Asks permission to introduce magazine articles as evidence.....	106
Called to give facts upon which he based charges of mismanagement.....	107
Charges of, concerning courts and judges, denied.....	706, 709
Colon—	
Ambulances busy bearing away corpses.....	99
Sanitary provisions entirely lacking.....	100, 101
Swamps described as perilous to health.....	99-103
Declined to furnish names of informants when demanded.....	100,
104, 105, 106, 108, 109	
Committee resolved that witness should give names.....	108, 109
Engineers of distinction declining offers of the Government to take charge of canal work, John R. Freeman et al.....	105, 106
Asks to withdraw name of J. R. Freeman.....	108, 107, 114
Denies naming anyone who was unwilling to go to the Isthmus.....	113, 115
Dunlop, John R., editor of the Engineering Magazine, is willing to make statement.....	113
Names of other engineers demanded and refused.....	109, 110
Engineers with whom he has held conversations since returning from the Isthmus—	
Dunlap, John R., Freeman, John R., Mr. Lundie and Parsons, William Barclay.....	110, 111
Declines to say if above refused.....	111
Declines to state conversations.....	112, 114, 115
Evidence not satisfactory, but can not be withdrawn.....	106, 108
Hospitals visited at Ancon.....	101
Negroes returning home.....	103
Photographs taken in streets of Colon.....	98
Positions held by, and work of.....	97, 98
Reed, Mr., acting governor, interviewed by.....	101
Required to state facts.....	103-106
Robinson, Tracy, relative to character and standing of.....	98, 112, 113
Spent part of two days on Isthmus.....	99
System introduced where dishonesty among employees may flourish.....	102
Dishonesty of inspectors alleged.....	102
Water scarce, yet recklessly thrown away by inspectors.....	102
Testimony of.....	97-115
Traversed the length of the railroad and back.....	101
Débris of old French railway on all sides.....	101

Bigelow, Poultney, charges mismanagement of canal affairs—Continued.	Page.
Wadsworth, J. W., Congressman, letter written to, by party describing conditions at Colon	103
Was not representing any interests in the United States	101
Went to Isthmus at his own expense	100
Wrote nothing until return to the United States	101
Could have secured data enough in two hours	101
Offered article to Harper's Weekly and Collier's, which was declined	101
Offered article to Independent, which was accepted	101
Bishop, Joseph Bucklin: As to his knowledge concerning purchases of expensive machinery, etc.	395
Black, Maj. W. M.: Was acting chief engineer when Mr. Wallace reached the Zone	585
Borings:	
As to continuity of rock at any one place above sea level	639, 640
Bohio—	
By Mr. Wallace, showed presence of water-bearing strata, trees, etc.	287, 307, 311, 608, 634, 635
By Walker Commission	635
Diamond drill only could determine presence of bowlders	288, 608, 634, 637
Walker Commission decided to use diamond drill	637
French claimed to have found rock at 128 feet, and why	633, 634
Presence of quantity of permeable material raises grave question as to the possible extent of seepage	287, 309
Statement of reasons why Mr. Wallace did not accept records of the Walker Commission showing rock at 128 feet	637, 638
Buena Vista	609, 653
Culebra, by Mr. Wallace	262, 263
Gamboa and along line of canal	632, 633, 638
Gatun—	
Under Mr. Stevens's directions have demonstrated impervious character of materials encountered in going to rock	292, 306, 307
Contradiction of above	306, 307, 315
Conditions with respect to possible seepage more favorable than at Bohio	287
Distance borings are apart from each other	309
No satisfactory location found (Wallace)	608, 651
Question as to the depth at which rock is found	311, 314, 315, 651
Water encountered at depth of over 200 feet	314
Various places:	
By French	632, 633, 636, 639
By Isthmian Canal Commission	33, 283, 636
Cores from	33, 262, 632, 633, 639
Of French people not much relied on	33
Brandon, Isaac, & Bros. (See American Trade Developing Company.)	
Breakwaters:	
Estimates for. To be built if found necessary	249, 276, 331, 608, 651, 664
Exposed portions of canal out from Limon Bay must be protected	75
Recommended, to prevent filling up of channel	233, 234
Buildings:	
General office on Canal Zone	650
Instrument repair shop	650
New buildings	587
Old French buildings renewed	76, 77, 587, 609, 655
Repair shops restored, etc.	609, 655
Schools	714, 796
(See Houses.)	
Y. M. C. A. building, plans for	613
C.	
Canal:	
Alignment of	233, 235, 257, 267, 278, 652
Borings. (See Borings.)	
Comparison of types of	268, 284, 285, 663
Cost of	83, 271, 275, 290, 292, 664
Cost of, character of labor as basis for estimating	83, 811, 812
Crossed by railroad	685



## Canal—Continued.

Page.

Contract work on. (*See* Contract plan.)

Course of ..... 72, 73, 91, 232, 233, 234, 249, 323

Culebra. (*See* Culebra cut.)

Curvature ..... 72, 73, 268, 321, 322, 323

Dams. (*See* Dams.)

Danger from attack ..... 289, 290, 296, 317, 328

Depth of ..... 240, 303

Depth of, increased without dredging ..... 285

Dumps—

Broken rock will occupy 50 per cent more space than it does undis-

turbed ..... 261

Cost per yard for dumping ascertained ..... 603

Determination of type of canal will enable spoil to be dumped prop-

erly ..... 25

Dumps improperly located; why ..... 70, 603

French dumps used ..... 25, 31

Suitable dumping grounds; where ..... 298

The removal of spoil by Mr. Wallace from Culebra cut is useful work. .... 70

The only material which will have to be moved was deposited by the

French ..... 95

Wallace, J. F., criticism of, for improper dumping ..... 614

Widening of canal prism might entail removal of part of the French

dumps ..... 72

Engineers of distinction declining to work on. (*See* Bigelow.)

Equipment ..... 22, 23, 300, 658

Old French, abandoned ..... 22, 25, 601

Old French, used ..... 413

Old French, purchased ..... 22, 414, 423-426

Excavation. (*See* Culebra Cut; unit prices.)

Existence of, dependent on safety of dams ..... 295, 315

French work abandoned ..... 236

Governmental methods should be eliminated in building. . . 548, 555, 645, 669, 670

Ideal canal would be a wide sea-level one. .... 284

Locks. (*See* Locks.)Lock-level. (*See* Lock-level canal.)

Maintenance, comparative cost of ..... 292, 293

Money appropriated for, and proportion included in \$150,000,000 ..... 275

Navigation—

Currents prevented, how ..... 242, 258, 304, 305

Danger in entering canal on account of northers ..... 72, 73, 232, 233

Danger less in lock canal ..... 284, 286

Difficulties from currents, etc., in 60-foot level canal ..... 291

Effect of currents ..... 283, 291

Effect of curves ..... 268, 285

Night and day work will expedite construction of ..... 810

Plan of organization pending letting of contracts, executive committee

suggested ..... 676, 677

Progress made since July 1, 1904 ..... 608, 650

Property not specified which was turned over to the United States by the

French company ..... 22, 386, 414, 423-426

Preparation to build ..... 69, 380, 381, 382, 386, 388, 661

Principal difficulties in construction ..... 47, 294

Railroad tracks laid, steam shovels installed, etc. .... 610

Railroad tracks and equipment improved ..... 26

Recommendation for canal and works incidental thereto ..... 651, 664, 665

Relative cost and time required to pass ships through each type of ..... 284

Report of board of engineers not binding as to particular plan of ..... 230

(*See* Wallace, John F., and Canal Zone.)Sea level. (*See* Sea-level canal.)

Shortening canal by Tiger Hill cut-off; extra cost not justified ..... 586, 608, 652

Silt up of channel on account of northers. (*See* Breakwaters.)

Specifications for building, time required to prepare ..... 302

Spoil. (*See* Freight.)Surveys. (*See* Surveys.)

Time required to construct different types of canal ..... 275, 290, 661

Tolls will be saved by use of small ships ..... 688

Canal—Continued.	Page.
Transforming from lock to sea level is costly .....	245
Unit prices. (See Unit prices.)	
Wallace, J. F.—	
Report of, concerning engineering and construction work from June 1, 1904, to February 1, 1905 .....	608, 649-655
Suggestions of, as to arrangements and needs for successfully pro- secuting the work .....	660
Water admitted to, etc. (See Water diversions.)	
Width of, for sea-level .....	72, 282, 324
Work done on and money expended .....	92, 93, 275, 374
On old plans .....	235
Canal Zone:	
Boundary of, not officially fixed .....	785
Churches .....	369
Climate enervating .....	79, 680
Coinage agreement. (See Coinage agreement.)	
Coal—	
Not known to exist on .....	89
(See Purchasing department.)	
Supply for, how carried .....	689, 690
Colombian law—	
Relative to administration of estates, power of President to con- tinue .....	913, 914
Titles to land .....	718, 721, 722, 787
When Canal Commission may repeal .....	913
Colon affairs. (See Colon.)	
Engineers found on, and work of, described by J. F. Wallace .....	586, 631
Expenses of, how paid .....	715
Franking privilege of United States extended to .....	197, 730
Food supplies on .....	749, 750
Force accompanying J. F. Wallace to .....	631
Freight congestion on. (See Pacific Mail Steamship Company.)	
Freight rates. (See Freight.)	
French machinery scattered along .....	32, 101
Government of—	
Administration of courts satisfactory to the Republic of Panama .....	827
Arms and ammunition of the Republic of Panama held subject to its orders .....	846-848
Character of government existing .....	7
Convictions for crime comparatively few .....	824
Deportation of citizens of United States .....	828, 829
Expulsion and extradition powers .....	827-829, 845
Gambling prohibited .....	829, 830
Importations—	
Agreement affecting, not ratified .....	834
Each Government has port of entry at La Boca and Colon. 672, 833, 836	
Establishment of ports of entry at Cristobal, etc., not desir- able .....	835-837
Import duties not charged if reciprocated by Republic of Panama .....	729, 863
Importations effected through Panama and Colon .....	672, 833, 834
No entry at Ancon or Cristobal, except when .....	728
(See Tariff.)	
Jail on .....	824, 827
Judiciary—	
Appeal, right of .....	825-827, 830
Courts—	
Act under authority of an act of Isthmian Canal Commission while it exercised legislative power for the Canal Zone ...	706, 825
Admiralty courts do not exist. Maritime matters so far settled out of court .....	914
Bigelow's charges of confusion in system of, denied .....	708
Clerks of, how paid .....	832
Ecclesiastical courts do not exist on .....	912
Equity powers of .....	912
Jurisdiction of .....	909

Canal Zone—Continued.	
Government of—Continued.	
Judiciary—Continued.	
Courts—Continued.	
Language spoken, ability of judges, etc.....	90, 706-712
Organization explained.....	706, 710
Personnel of.....	8
Power to inflict life sentence derived from legislative acts of the Isthmian Canal Commission, etc.....	711, 712
Power of the President to continue Colombian law concerning administration of estates, etc.....	913, 914
Probate courts.....	913
Reenactment of section 2 of act of April 28, 1904, would admit of establishment of right to grant divorces.....	912, 913
Status of.....	7
Judges—	
Chief justice not citizen of United States.....	706
Criticism of, by P. Bigelow.....	706-709
Number of cases tried by supreme court judges as an appeal court not large.....	709
Salaries of.....	806
Laws of Isthmian Canal Commission, how continued when power to legislate ceases.....	712
No jury system on Zone.....	710
No provision for writ of habeas corpus.....	827
Penal code of Commission.....	825
Report book kept of supreme court cases.....	709
Legislative power needed.....	707, 826, 912
Legislation needed for.....	7, 350, 367
Machinery for enforcing laws on.....	831, 832
Marines at Bas Obispo.....	849
New laws for, regarding power of President to promulgate.....	826
Police—	
As to conflict between the two forces.....	832
Complaints against.....	874
Force of Zone and Republic of Panama kept separate.....	832
How appointed.....	832
Increase of force.....	706
United States to control.....	51, 81
Quarantine. (See Quarantine.)	
Revenue department—	
Functions of.....	712, 713
Gold coin, tax on to be abolished.....	730
Land tax—	
How collected.....	717
How disagreements are adjusted.....	717
Per cent of.....	716
What lands are taxable.....	717, 783
Licenses.....	188, 885
Market houses purchased with Zone funds.....	716
Postage-stamp revenues go to Canal Zone government.....	188, 714
Revenues from leased land.....	188, 713
Salaries paid from Zone funds.....	715, 716
Shipping tax at Mindi not applicable to Panama Railroad ships.....	835
Sources of revenue and where deposited.....	188, 717
Stamped paper, tax on.....	188
Tariff. (See Tariff.)	
To remain with United States.....	350, 367, 476
And extend outside of in certain cases.....	80, 81, 487
Under orders of President and Secretary of War and statutes enacted by the Isthmian Canal Commission.....	822, 823
Power of above tested by appeal in lottery cases to United States Supreme Court.....	830
Governor of—	
Advantageous for him to be a Commissioner.....	677
As to conflict by reason of dual position held by.....	848
Duties and powers of, how regulated.....	822, 823

## Canal Zone—Continued.

Page.

## Governor of—

Magoon, C. E., assumed duties of, May 25, 1905.....	822
Pardoning power of .....	823, 911
Pardoning power exercised.....	824
Regarding correspondence between United States and Republic of Panama.....	845, 846
Salary of, how paid.....	715
(See Magoon, C. E.)	

## Health conditions on. (See Health conditions on Canal Zone.)

## Highways—

Lack of.....	880
To be maintained by Canal Zone government, why?.....	731

## Lands—

Acquired by condemnation, statement of, to be furnished .....	907
Authority for leasing .....	894, 983
Boundaries of Zone .....	487, 785
Cleared land outside of towns, etc., not more than 2 square miles .....	248
Cultivation of.....	622, 623, 805, 806, 807
Cultivation of, encouraged by offer of land free or at reduced rent..	353, 807
Irrigation needed, why? .....	806
Panama Railroad Company—	
Boundaries .....	786
Owned by .....	94, 256, 257, 781, 783, 784, 786
Right of way .....	783, 786
Titles.....	783, 784, 786
Registry of, public and private .....	721
Rental value of, Chinese pay \$300 an acre.....	623
Revenues from.....	188, 713
Right of eminent domain allowed in Republic of Panama .....	721
Submerged—	

How and at what price obtainable .....	256, 257, 719, 720, 721, 725
United States would pay value of, at time treaty was made.	247, 720, 721
Value of.....	247, 248, 256, 257

## Surveys of. (See Surveys).

## Tax on. (See Canal Zone, revenue department.)

## Titles to—

Adverse possession .....	8, 784
Authority needed for courts to pass upon judicially.....	717,
718, 719, 725, 787	
Boundaries should be determined .....	7, 724, 781, 782, 785
Character of, held by United States.....	908
Colombian law applies to .....	718, 721, 722, 787
Delimitation of Colon and Panama .....	785, 786
How defects arise in .....	723
How determined between private citizens.....	722
In event of failure to build canal .....	837
New Panama Canal Company chargeable with damages, when ..	8
Panama Railroad Company's.....	783, 784, 786, 787
Republic of Panama, interest in, secured by treaty.....	788, 837
Transfers of .....	721, 722
United States acquired Santa Rosa estate, near Ancon.....	788, 789, 790
Value of, difficulty in determining .....	720, 721, 788, 789

## Postal arrangements on. (See Postage and Postal and monetary agreement.)

## Rum manufactured on..... 53, 54, 372, 373, 795

## Salaries. (See Salaries of officials.)

## Sanitation. (See Sanitation.)

## Savings banks for, desirability of..... 489

## Schools—

Attendance statistics.....	715
Attendance voluntary .....	716
Buildings for, difficult to secure .....	714, 796
English language used in.....	715
Free tuition and books .....	716
How supported .....	715, 796, 797, 817, 818, 885
Location of .....	716

	Page.
Canal Zone—Continued.	
Schools—Continued.	
Number of.....	795, 796
Private and sectarian.....	714
Sunday schools.....	369
System of.....	817
Teachers, how secured.....	715
Who admitted to.....	714, 715, 716, 796, 818
Sovereign rights of United States on—	
Ability to appeal to Supreme Court of United States implies.....	910, 911
Application of treaty to.....	721, 731
As to necessity for declaring.....	775, 912
Circular No. 4 defines.....	727-731
Agreed to by decree of President of the Republic of Panama.....	734
Claimed to be for construction of canal alone.....	713, 732
Explained.....	837
Titular sovereignty in Republic of Panama over ports of Cristobal and La Boca.....	671, 672, 837
Treaty need not be amended by adding terms of Circular No. 4 thereto.....	732, 733
United States has not power of sovereignty.....	350, 488
Timber on, mahogany, etc.....	916
Title to. (See Canal Zone lands.)	
Treasurer of, is custodian of postage stamps, etc.....	195, 196, 717
Wallace, J. F., arrival on.....	585
Water supply. (See Water supply on Canal Zone.)	
Width of, insufficient.....	486, 487
Y. M. C. A. building proposed. (See Y. M. C. A.)	
Capital punishment:	
Authority to inflict.....	710, 711, 712
Execution of, would devolve upon marshal.....	832
Cement:	
Does not depreciate crossing ocean.....	298
Foreign purchases.....	133, 144, 145, 153, 297
Material to make it is not known to exist on Isthmus.....	89
Price of, etc.....	90, 153, 297
Quantity constantly being sent to Isthmus.....	393
Testing of.....	296, 297
Chagres River. (See Water diversions.)	
Chagres Valley:	
Drainage of swamps in.....	490, 491
Filled with débris brought down by mountain streams.....	634, 635
Gamboa, formerly mouth of.....	635
Charlton, Paul:	
Legal adviser of Isthmian Canal Commission.....	7, 218, 483
Civil Service:	
Appointments in auditing department of the Canal Commission.....	220, 223
Clerical help secured through, exceptions.....	170, 221, 223, 821
Examinations held on Zone.....	619
Operation of, on Canal Zone.....	820, 821
Requirements of, do not insure securing suitable men for outdoor work.....	53,
617, 618, 619	
Requirements of, as to citizenship.....	620
Clay. (See Indurated clay.)	
Coal. (See Purchasing department.)	
Coastwise laws:	
Effect of, on transportation.....	13, 14, 526
Coinage agreement:	
Agreement retired the Colombian silver.....	739
As to control of value of coins—	
By bankers, etc.....	739
By United States.....	740
Circulation of coin explained.....	207, 743
Conditions unfavorable to circulation of United States coin.....	743, 745, 767
Confusion of "agreement for coinage" with "banker's agreement," and need for execution of the latter.....	736, 737, 739
Congress of neither government has ratified it.....	202, 735, 736

## Coinage agreement—Continued.

Page.

Expense of maintaining subtreasury on Isthmus would be greater than that of plan in vogue to secure silver coin .....	740, 741, 744
How brought about .....	735
Limited coinage cause of shortage in supply .....	474, 737, 738
Loss on part of United States Government impossible .....	741
Monetary commission established a system of coinage .....	735, 737
No charge for silver when paid for in United States currency .....	739
Question as to how United States Government would maintain supply of silver coins to pay its laborers in case it minted and issued them .....	742
(See Monetary agreement.)	
Silver furnished by Republic of Panama .....	213, 227
United States manufactures the Panamanian coins at Philadelphia. ....	213, 476, 740
Why United States coins not used .....	738
Would pay double for everything by use of United States coins, unless the United States manufactured one and made it worth 50 cents on the dollar .....	740

## Colon:

Bay exposed to northers .....	73, 74, 75, 233, 234
Bigelow, Poultney. Statement regarding .....	98-103
Controlled by Panama Railroad Company under a long lease .....	94
Harbor facilities needed for .....	664
Death rate per thousand per annum .....	597, 854
Houses for laborers not built in swamps by the Canal Commission .....	56, 855
Difficult and costly to fill up island .....	491, 855
Health conditions at. (See Health conditions.)	
Improvement of houses retarded, why .....	597
Mayor of .....	253, 254
Plan for draining, etc .....	88, 849
Population of .....	491, 596
Report of committee regarding means to improve .....	850-853
Sanitation. (See Sanitation.)	
Water supply and sewerage considered .....	595, 853, 854, 855
Wharves at, controlled by Panama Railroad .....	16, 413

## Commissaries:

Copies of correspondence and official papers leading to temporary use of, by laborers .....	352-358, 415-421
Necessity for .....	66
Not to be opened to colored employees, except when .....	64, 345, 346, 416, 449, 453, 454, 624, 625, 774, 775, 776
Objection of Panama Republic to United States furnishing laborers with .....	64, 345, 359, 773, 774, 775
Ditto by merchants .....	672, 749, 750, 751, 775
Opened to laborers when without money .....	620, 624, 625, 862, 863
Operated by Canal Commission, when .....	435, 622, 624, 625
Opened by Mr. Shonts as an emergency measure .....	359, 360, 870
Operated by Panama Railroad Company for its employees, etc .....	63, 226, 364, 622, 624
Plan of J. F. Wallace concerning .....	625
Purchased by coupon tickets .....	357
Secured in New York .....	90, 121, 136
Formerly bought by Canal Commission .....	136
(See Foodstuffs and Feeding employees.)	
Treaty provisions or agreement for operating .....	345, 351, 352, 353, 415
Twenty per cent added to cost of .....	67
Use of, for silver men assented to by Republic of Panama .....	355, 356, 453, 454

## Concrete:

Its strength and utility illustrated .....	297, 329
Locks to be made of .....	329

## Contract plan of building canal:

Buildings for housing and feeding employees should be leased to contractor .....	367
Effect of eight-hour law on .....	645, 646
Equipment would be sold to contractor .....	300
Favored by Chief Engineer J. F. Stevens .....	49, 299
Ditto John F. Wallace .....	671, 674, 675
If done by contract, legislation will be needed .....	302

	Page.
Contract plan of building canal—Continued.	
If contractor unrestricted as to labor and material, better bids would be secured .....	294
Panama Railroad should be leased to contractor, under control of chief engineer .....	50, 301
Work could be divided .....	299, 300
Work on, how to be paid for .....	670, 671
Courts. ( <i>See</i> Canal Zone, government.)	
Cromwell, William Nelson:	
Action of, regarding Markel contract .....	430-433, 437, 451, 466
Active in reorganizing Panama Railroad Company .....	568
Attends board meetings of Panama Railroad Company .....	445
Cables J. F. Wallace his election as general superintendent of Panama Railroad Company .....	564, 565
Connection with banks on Isthmus .....	412
Interest in bankers' agreement, and why? .....	768, 769
Official positions held by .....	412, 577, 758, 759, 764
Only visit to Isthmus was in fall of 1904 .....	673, 674, 780
Reasons for going .....	564, 673, 674
Presents claim of New French Canal Company against United States .....	563, 564, 580, 581
Present at interview between J. F. Wallace and Secretary of War .....	553, 561, 562, 570, 571
Regarding stock holdings in Isthmian companies .....	412, 579, 749, 763
Relations of, to canal, Panama Railroad Company, etc. ....	218, 410, 411, 577, 578, 579, 676, 749
Represented Republic of Panama in monetary agreement. ( <i>See</i> Wallace, J. F.)	204, 411, 758, 759, 762
Culebra cut:	
Abandonment of work done in, not probable .....	91
Cost per yard for excavating and disposing of spoil from .....	658, 659, 660
Curvature identical for either type of canal .....	269
Excavation—	
At deepest point 160 feet .....	240
Extent and amount of .....	22, 259, 277, 610, 659, 661
Great reduction in amount if lock canal adopted .....	241, 277, 661
Rock, and 90 per cent must be blasted .....	30, 31, 261, 263, 639
Suspended .....	25, 26, 27, 71, 379, 382, 586
Will be renewed on receipt of equipment .....	299
Improved arrangement of tracks for work trains .....	26, 28
Increase in bottom width would necessitate sloping of sides .....	72, 260
New engines and cars ordered for use in, etc .....	29, 692
Operation of eight-hour law would increase cost .....	602, 647
Old and inadequate equipment used at heavy expense .....	22, 25, 70, 71, 386
Why? .....	610, 659
Output per machine, 1,000 yards a day .....	661
Panama railroad—if built in, would obstruct work .....	383, 384
Except when .....	685
Regarding carrying it through .....	385, 686
Principal problem in disposal of spoil .....	23, 301
Greater haul entailed; why? .....	298
Revetment in .....	261, 262
Rock from, not suitable for locks .....	261
( <i>See</i> Unit prices.)	
Sides of, perpendicular in portion of .....	262
Sliding of earth in .....	32, 262, 600
Trackage necessary .....	28
Wallace, J. F.—	
As to needs for economical conduct of work in .....	659, 660
Cores from borings made by, retained on Isthmus .....	33, 262, 639
Criticism of, for expending a half million dollars in excavating .....	70, 380, 381, 386, 602
Found 500 men at work in .....	586
Improved plan of operations being made by .....	600-606, 609
Work done and data procured from .....	381, 386, 604, 605, 609, 610, 657, 658, 659, 660, 661

	D.	Page.
<b>Dams:</b>		
Earthen construction recommended by minority report .....		236, 267
Not absolutely necessary in lock canal .....		316
Alhajuela—		
No dam to be built at .....		239
Ancon—		
Dimensions .....		318
Earthen .....		267
Foundation for, is impervious .....		244
Foundation alleged to be bad .....		318, 319
Bohio—		
Danger from seepage .....	288, 309, 310,	634
Destruction of, would close canal absolutely .....		663
Earthen dam could not be built as safely as at Gatun .....		286, 287
How seepage might be prevented .....	310, 311,	609, 652
Rock found to be 165 feet below sea-level instead of 128 feet. ....		634, 652
(See Borings.)		
Site unsatisfactory .....		608, 651, 652
Why abandoned for Gatun? .....	236, 237, 291, 292,	309, 310
Gamboa—		
Data demonstrating its control of Chagres River .....	279, 609, 654,	662
Danger to, would be only that which any artificial masonry work		
would be subject to in time of war .....		316, 317
Dimensions of .....		279
Electric power plant in connection with .....	654, 655,	663
Estuary at, unnecessary .....		239, 258
Estimate for, and works in connection therewith .....		654
Failure of, would only temporarily interrupt traffic .....		663
Failure of, would wreck canal .....	280, 281,	295
Favored by J. F. Wallace .....	663, 664,	665
Of masonry core reinforced by broken rock .....		653, 654
Rock foundation of .....	33, 34, 242, 281, 316,	653, 662
Site satisfactory .....		609, 651
Why selection of Gamboa for dam site advisable .....		662, 663
Gatun—		
Dimensions of .....	236, 250, 251, 312,	313
Earthen construction on clay foundation .....		237, 329
Estimated contents 2,100,000,000 cubic yards .....		250
Extra height above proposed level of water to give weight and		
solidity .....		250
Foundation would be clay, satisfactory and almost impervious .....		237,
287, 292, 315, 329,		330
Contrary claim .....		608, 651, 652
Its great size a protection in time of war .....		296
It is key to success of canal .....		328
Material in, being dredgings, will not settle .....		251
Regulation works. (See Water diversions.)		
Safety—		
Its great size makes it perfectly safe and is preferable to a stone		
structure on a rock foundation .....		251
Opinion as to safety based upon other like structures .....		295
Safety challenged by majority report .....	314,	315
Seepage .....	312,	314
Water pressure on, will not affect safety of .....		251, 252
(See Borings.)		
Surveys for .....		75, 76
The only dam on north side of canal .....		236, 237
La Boca—		
Foundation—		
Alleged to be very poor .....		318, 319
Rock near surface, but would not be used for foundation .....		244
Miraflores—		
Built of dredged material .....		267
Rock foundation .....		244
Data secured by J. F. Wallace of value .....		381, 604
Dauchey, W. E., acting chief engineer .....		455, 551, 554



	Page.
Davis, Gen. G. W., governor of Zone and commissioner.....	558
Docks:	
Cristobal. Two new ones built.....	15, 94, 672
If needed for canal purposes, docks would be built and paid for by the Canal Commission .....	63, 376, 379
Improvement in, needed.....	343, 413
Reciprocal dockage privileges .....	728, 729
Steel dock at La Boca.....	36, 234
Steel dock at Panama.....	234
Wooden dock being constructed at La Boca, but delayed for want of piling.....	37
Documents inserted in the Record:	
Senate resolution providing for an investigation of matters relating to the Panama Canal, etc .....	3
Letter to J. F. Stevens from W. G. Biedr, superintendent Panama Railroad Company, regarding freight congestion .....	40
Circular regarding proposals for dump carts, etc.....	159
Specifications regarding proposals for dump carts, etc.....	160
Proposals, guaranty, etc., form of .....	163
Circular No. 15, regarding auditing organization.....	168
Preliminary report of general auditor for the year ending June 30, 1905.....	171
Resolution of Canal Commission directing separation of accounts of old Commission by opening new set of books .....	173
Circular No. 17, governing the purchase, delivery, issuing of, and accounting for material and supplies .....	176
Monetary agreement .....	202
Commissaries: Official correspondence relative to opening of, to common laborers .....	353, 415
Agreements of November 8, 1905, between Isthmian Canal Commission and Panama Railroad Company for double tracking .....	376, 400
Resolution of executive committee of the Isthmian Canal Commission relating to the agreement between it and the Panama Railroad Company to double track the railroad.....	403
Resolution of the Isthmian Canal Commission to enter into agreement with Panama Railroad Company to double track its railroad, together with copy of agreement.....	404
Action of executive committee of Isthmian Canal Commission at Panama authorizing opening of commissary stores to native employees.....	420
Equipment and cost thereof purchased by former Chief Engineer J. F. Wallace .....	421
Statement of total number of gold and silver employees in commissary department of Panama Railroad Company, and amount of wages paid.....	421
Statement of ports on Pacific coast which quarantined against the port of Panama last season on account of bubonic plague .....	422
Letter from Chief Engineer J. F. Stevens concerning estimated cost of changing the gauge of the Panama Railroad .....	422
Letter from Chief Engineer Stevens showing ports that quarantined against Panama and Colon on account of yellow fever during past year.....	422, 423
Extract from testimony of Rear-Admiral J. G. Walker, U. S. Navy, of February 8, 1902, relative to purchase of the Panama Canal Company's property.....	423
Letter from Mr. Shonts to Secretary of War concerning inaccuracy of minutes of meeting of board of directors of Panama Railroad Company as they relate to the Markel contract.....	430
Cablegrams regarding cancellation of Markel contract .....	439
Letter from Hon. W. H. Taft to Hon. T. P. Shonts regarding allowance to J. E. Markel .....	441
Statement of number and pay of civil engineers on staff of Panama Canal. Extract from published letter of the Secretary of War under caption of "Taft withdraws his Pacific mail charge" .....	454
Schedule of arrivals and departures of ships of Pacific Mail Steamship Company's Panama line during 1906 .....	494
Correspondence between Pacific Mail Steamship Company and Panama Railroad officials regarding movement of freight.....	511
Letter from Stuyvesant Fish to Admiral Walker recommending John F. Wallace .....	518, 528
Letter of William Barclay Parsons to John F. Wallace regarding position of chief engineer .....	546
Letter of William Barclay Parsons to John F. Wallace regarding position of chief engineer .....	547

## Documents inserted in the Record—Continued.

Extract from letter of Admiral Walker to Mr. John F. Wallace appointing him chief engineer.....	549
Statement as published by Mr. Wallace relative to his resignation, reasons therefor, etc.....	552
Cablegrams between Secretary of War and former Chief Engineer Wallace respecting reorganization of Commission.....	567
Summary of work on Panama Canal—July 1, 1904, to June 30, 1905—by J. F. Wallace.....	608
Report of Chief Engineer Wallace to Rear-Admiral J. G. Walker of engineering and construction work under his direction, June 1, 1904, to February 1, 1905.....	649
Statement of total number of employees paid in gold and silver.....	667
Circular No. 4, Isthmian Canal Commission, publishing order of Secretary of War respecting management of affairs on Canal Zone.....	728
Report of chief sanitary officer for December.....	798
Letter from British consul at Panama to Governor Magoon concerning housing, feeding, and paying laborers.....	839
Affidavit from Martinique woman.....	842
Extract from letter of Secretary Guardia, of the Republic of Panama, stating no differences exist between his Government and the United States, and that Panamanians are being fairly treated by the United States....	845
Report of committee of engineers appointed by Chief Engineer Stevens on question of permanent sanitation for Colon.....	850
Letters and reports from various consuls at Panama respecting condition and treatment of laborers, mail service, etc.....	856-876
Concession of Panama Government to the Union Oil Company of California to establish an oil pipe line, etc.....	878
Letter from Chairman Shonts to Senator McCumber, with list of companies making proposals to supply oil or construct pipe lines on the Canal Zone.....	883
Memorandum of Mr. T. P. Shonts for Secretary of War with reference to request of Union Oil Company of California to construct an oil pipe line across the Isthmus.....	883
Letter from Secretary Taft to Mr. Shonts authorizing issuance of revocable license to Union Oil Company to put an oil pipe line across the Isthmus through the Canal Zone.....	885
Letter from Secretary Taft, dated January 6, 1906, not addressed to anyone, on subject of license to Union Oil Company.....	885
Letter from John Baker, jr., manager of the Union Oil Company of California, addressed to Hon. William H. Taft, setting forth benefits which will accrue from establishment of an oil pipe line.....	886
Order of the President of the United States relative to the granting of a revocable license to the Union Oil Company to construct and operate an oil pipe line in the Canal Zone.....	890
List of names, positions, and salaries paid employees of the department of government and sanitation, revenue department, judiciary, prosecuting attorney's office, police and health departments.....	896
Statement showing gross payments made by Walker Commission, gross amount of unpaid liabilities incurred on account of material, etc., and amount old Commission paid for compensation.....	917
Statement of bonded indebtedness of Panama Railroad Company.....	919
Letters from various oil companies with respect to the establishment of a pipe line, etc.....	921
Affidavits concerning women from Martinique, treatment of laborers, etc.....	931-981
<b>Dredges:</b>	
Building of, on Isthmus not feasible.....	89
How purchased.....	394
Old French, testimony of Admiral Walker concerning.....	414, 423-426
Repair of.....	134
<b>Dredging:</b>	
Amount of probable, without breakwater.....	249
Amount needed for sea-level will be greater than for lock-level canal.....	244,
	268, 269, 293
Bids received for, were too high.....	381
Drills, explanation of.....	288
Dumps. (See Canal.)	

	E.	Page.
Earthquakes:		
Earthen dams less liable to destruction by .....		282
Old church at Panama unaffected by .....		281
Education. (See Canal Zone, Schools.)		
Ehrman & Co., party to monetary agreement .....		202
Eight-hour labor law:		
Abolition of, in the Canal Zone would not affect labor in the United States .....		51, 85, 643
Adds cost and time in construction of canal .....	52, 84, 294, 602, 642, 647	
Attorney-General rules it applies on Canal Zone; penalties apply .....		348, 642, 645, 811
Question as to its operating on Zone .....		488, 806
Chief engineer should be unrestricted in the matter of employment of labor .....		642, 645
Contractor should be unrestricted in the matter of employment of labor .....		51, 642
Effect of, on contract work .....		645, 646
Embarrasses the canal work .....	743, 744, 807, 808, 809	
If eight hours' labor is deemed sufficient in the United States, it might be considered proper on the Canal Zone .....		645, 807
Is applied in the Isthmus in practice to both aliens and citizens .....		809, 810
Gold men working eight hours and silver men ten hours will not be a satisfactory arrangement .....		642, 643, 646, 809
No avoidable restrictions should be allowed in connection with the canal work .....		642, 644
Operates to prevent overtime .....		646, 811
Extra allowance for overtime .....		348, 862
Penalties for infraction of .....	348, 642, 645, 811	
Would be better for laborers if abrogated .....		294, 348, 488
Elections of Panama Government should not be held within Canal Zone .....		722
Electric Lighting and Ice Company:		
Light and ice not purchased from .....		673, 749
Electricity:		
Secured from Panama Railroad Company at Panama .....		748, 749
Employees:		
Anxious to have their families with them .....	369, 389, 797	
Character of .....		55
Clerical force, etc., how secured .....		820, 821
Commissary department, number employed in .....		421
Complaints about food and quarters .....		364, 611
Diminished or ceased .....		867-876
Delay in payment of .....		20, 870
Engineer corps—		
Number of employees comprising .....		454, 667
Salary of .....	90, 91, 92, 454, 649	
Feeding. (See Feeding employees.)		
Gold roll—		
List of, requested with salaries .....		820
List shown on pages .....		896-907
Housed and fed properly during Mr. J. F. Wallace's stay in Zone .....		610, 611
Ditto subsequently .....		867-876
Housing of. (See Houses.)		
In accounting department .....		215
Influence of climate on whites .....		79, 680
Laborers. (See Laborers.)		
Number of gold and silver employees .....		374, 375
Only citizens or those who would swear allegiance to the United States could be employed on canal work except colored men .....		620
Part of salaries can be sent to United States—how .....		214, 770
See Wages.		
Selection of .....		646, 656
Should receive higher pay for services on the Isthmus than in the United States .....		680, 681
Tabulated statement of total number paid in gold and silver .....		69, 667
Transportation of. (See Transportation of employees.)		
Y. M. C. A. (See Y. M. C. A.)		
Engineers declining offers of Government to work on canal. (See Bigelow.)		

Engineers:	Page.
Black, Maj. W. M., acting chief engineer .....	585
Dauchey, W. E., acting chief engineer .....	455
Method of operation of .....	586, 631, 636, 649
Statement of number and pay of .....	454
Equipment for canal construction:	
Construction track poor and inadequate .....	24
Division of expense for, between railroad and commission... ..	60, 63, 216, 379, 407
Dump cars purchased .....	26, 28
Flat cars ordered .....	29
French cars (3,000) of very small capacity .....	24, 413
French engines about 16 to 20 per cent the capacity of modern equip- ment .....	23
Higher prices asked on account of tardy settlement of bills .....	670
Prompt settlement effected .....	175
Locomotives purchased .....	27, 29, 399
Old French—	
Efficiency tested .....	610
Price paid for it .....	22, 387, 424
Restored .....	609, 655
Steam shovels purchased. (See Steam shovels.)	
(See Purchasing department.)	
Excavations. (See Culebra cut and Unit prices.)	

## F.

Farnham, Roger L.:	
Director of Panama Railroad Company .....	409, 481, 482
Sent to Europe to negotiate for purchase of ships .....	482
Feeding employees:	
Accounts so kept that cost will be definitely known .....	471
Bids—	
Advertisement for .....	65, 460
Concerning filing of Balfe's .....	459
How many .....	447
Hudgins & Dumas .....	449, 456, 457, 458
Limitation of the commissary business explained to bidders .....	448, 449
Markel's bid .....	364, 457, 458
Not clear as to who was lowest .....	448, 459, 460
Prices bid .....	448, 459
When to be filed .....	456, 457
Board bills deducted on pay rolls .....	174, 228, 357, 862, 863
When not .....	620
Boarding houses. No objection to operation of, by Isthmian Canal Com- mission .....	774
Charter right of Panama Railroad Company to feed canal employees .....	451, 460, 484, 779, 780
Commissaries. (See Commissaries.)	
Commissary Department; necessity for .....	66
Complaints of employees about food and quarters .....	364, 611
Conditions leading to change in plan of .....	772, 773, 775
Contract plan not considered by Isthmian Canal Commission .....	777
Discussed .....	778
Contracting for .....	452
Cost of .....	66, 67, 86, 363, 364, 365, 471
More than price paid by gold employees .....	471, 472
To silver roll and what furnished .....	861, 862, 863
Diet of negroes can be regulated but little .....	470, 472, 624, 862, 863
Experimenting with .....	453, 620, 621
French Panama Company not known to have had contract with Panama Railroad Company .....	451
Hotels operated at loss .....	472
Hotels operated by Isthmian Canal Commission .....	65, 226, 364, 433, 471
Isthmian Canal Commission's interest would be protected by a majority representation on the board of directors .....	453
Law requires Canal Commission to let contract to lowest bidder—when..	460, 461
As to its application to Panama Railroad .....	460

## Feeding employees—Continued.

Markel, J. E., contract—

Page.

Advantages to Commission and railroad greater than other bids	461
Awarded	65, 364, 435
Bids—	
Lowest	364, 436
Markel's	364, 457, 458, 460
Markel not invited to Isthmus to bid	65
Whose was lowest	364, 461
Cancellation of	65, 439, 467
Agreement for	365, 440, 446, 447, 462, 468, 469
Clause providing for immediate cancellation added after execution, copy of	462, 469
Power limited for	468, 469
Reasons for	364, 440, 446, 462, 469, 470
When	437, 438, 440, 463, 473
Who present when canceled	430, 440
Contract price not improper for gold men	471
Cromwell, W. N., advises, etc., regarding	430-433, 437, 451, 466
Dauchey, W. E., letter from Mr. Wallace introducing J. E. Markel to	455
Directors of railroad company did not ratify during its existence	438,
	439, 441, 483
Effective when	437, 438
History of	364, 429
Large capital necessary to carry out	474
Letting of, how determined	364, 450, 459
Markel not known to be figuring on a contract	434, 455
Magoon, C. E., had no knowledge or official connection with	781
Present when abrogated	430
Suggested letting contract	434
Period to run	450, 451
Profit not assured under	472
Profit alleged to be \$1,000,000 a year	470
Right of Panama Railroad under its charter to make	451, 460, 484, 779, 780
Services of J. E. Markel under. (See Markel.)	
Terms too high	65, 66, 67, 365, 440, 470, 471
Terms modified	366, 458, 463, 470, 472
Thought that as Commission would furnish plant for feeding employees, it should operate it (Shonts)	364, 433
Validity of	484
Value of	450, 452, 470, 473
Value of, affected by—	
Cancellation clause	469
Competition of merchants	449, 474
Contractor feeding his own men, if canal built by contract	473
The possible effect of a limited Isthmian silver coinage	475
Transportation charges on supplies	448, 449, 452
Treaty arrangement not to supply food to colored labor except when prices for foodstuffs are high	449
Who took part in making	483, 484
Why made with railroad company	430, 434, 435, 462, 778, 779
Executive committee had power to act on	483
Would have been unprofitable	453, 472, 473, 474
Who prepared by	437, 483
When entered into, the Washington office was unaware of the then cost of feeding	365, 469
Menu and specifications furnished	436, 456, 457, 458, 470
Negroes always dissatisfied with food furnished	620
Permitted to have their own vegetables cooked by the Commission	620
No provision made for common laborers	343, 345, 352, 361, 362, 469
Responsibility for	358, 359, 360, 361, 362
Objections to Commission doing a commissary business with silver employees	773, 774, 775
Agreement concerning	351-360, 415, 453, 454, 774, 775, 776
Patronage of mess kitchens slight and uncertain	451, 453, 471, 472, 475
Pressing need existed for feeding arrangements	343, 469

<b>Feeding employees—Continued.</b>	<b>Page.</b>
Salary of chief commissary.....	66, 86
(See Foodstuffs.)	
When laborers were without money to buy food on their arrival, arrangements were made with commissary department to furnish necessities until pay day .....	611, 620, 624, 625, 862, 870
<b>Fish and fisheries .....</b>	<b>347</b>
<b>Foodstuffs:</b>	
Expedients resorted to that supply might be increased and cost decreased ..	353, 416, 749
High price of .....	345-352, 353, 621
Exaggerated .....	611, 621
Laborers secured it from merchants.....	354, 622
No shortage of.....	621, 622
Shortage alleged.....	355, 370
On Canal Zone .....	749, 750
(See Feeding employees.)	
<b>Vegetables—</b>	
Can be cultivated on Zone .....	622, 623, 807
Chinese pay rental as high as \$300 per acre for land.....	623
Not purchased by laborers on their arrival on account of having no money.....	611, 620, 624, 625, 870
Principal food of laborers .....	622, 624, 861, 862
The raising of, encouraged by offer of land free of rent.....	353
<b>Foreign competition for material, etc.:</b>	
As to purchasing materials abroad, less the tariff, cheaper than in the United States .....	143, 153
Cement purchased from abroad.....	133, 144, 145, 153, 297
Do not advertise and have no subagencies in foreign countries .....	133, 142, 143, 144, 145
Advertisements are seen by representatives of foreign firms located in New York, etc .....	134, 143, 144, 152, 153
Labor secured in cheapest market, why not materials, etc .....	144, 153
No foreign bids received for railroad iron.....	145, 152
Parts of French dredge purchased abroad .....	134
Pig lead purchased in England .....	133, 144
<b>Freight:</b>	
Coal, how carried .....	689, 690
Congestion and movement of. (See Pacific Mail Steamship Company.)	
Not classified in Suez Canal .....	689
<b>Panama Railroad Company—</b>	
Agreement with Pacific Mail Steamship Company .....	527
Agreement to carry supplies at \$5 a ton from New York .....	127
Charters steamers sometimes and charges expense to Commission .....	125, 126, 690
Importance of commercial business.....	385, 527, 682-686
<b>Rates—</b>	
Allowed Panama Railroad Company and Pacific Mail Steamship Company .....	504, 527, 683
<b>Discrimination in—</b>	
Brick classified as "Crockery uncrated".....	688
Flat rate of \$2 a ton on all freight from ships would prove saving in expense .....	682, 683, 687, 689
For movement of spoil.....	27, 28, 60, 300, 376
Gallagher, Maj. Hugh J., not responsible for rates charged by Panama Steamship Company.....	126
High on coal, and why .....	504, 690
High freight rates discourage cultivation of land, etc.....	623
Of Pacific Mail Steamship Company .....	521, 522, 523
On Suez Canal .....	683, 689
On food supplies .....	448, 449, 452
Result of excessive charges.....	623, 686, 691
Ships maintained in service to prevent advance in freight charges ...	690
<b>Transcontinental railroads—</b>	
Agreement with Panama Railroad to pay it \$75,000 monthly for space not used by freight.....	225

Freight—Continued.	
Rates—Continued.	Page.
Transcontinental railroads—Continued.	
Interest in traffic arrangement between Panama Railroad Company and Pacific Mail Steamship Company.....	533
Rates of, would be disturbed by reduction on Panama Railroad. 682, 683	
(See Pacific Mail Steamship Company.)	
Transportation—	
Effect of coastwise laws.....	13, 14, 526
Facilities on Isthmus.....	594, 656
Of coal.....	689, 690
Of gunpowder with mixed freight.....	530
Of materials, etc., to Isthmus.....	125, 126, 127, 140, 689, 690
Of oil. (See Oil pipe lines.)	
Of spoil.....	60, 298, 301, 385, 386, 654
United Fruit Company's line—	
Agreement with.....	125
Generally used in transporting emergency supplies bought at New Orleans.....	125
Volume of.....	495, 509, 523, 524

## G.

Gallagher, Maj. Hugh J.:	
(See Purchasing department.)	
Testimony of.....	117-165
Gambling:	
Decreased on account of concession expiring.....	829
Prohibited.....	830
Gambos:	
Dam. (See Dams.)	
Was formerly mouth of Chagres Valley.....	635
Width of canal at.....	303
General Electric Company:	
Investigation of power on Isthmus for electric purposes.....	98, 99
Gold coin:	
Some used by laborers.....	765
Tax on, to be abolished.....	730
Government of Canal Zone. (See Canal Zone, government of.)	
Governor. (See Canal Zone, governor.)	

## H.

Harrod, Maj. Benjamin M., recommended for Commissioner by J. F. Wallace.	546
Health conditions on Canal Zone:	
Can be greatly improved.....	648
Chief sanitary officer's report.....	798, 799
Effect of bubonic plague on business.....	43, 510
Hospital treatment insisted upon in early stages of sickness.....	78, 479, 863, 864
How affected by creation of lakes.....	242, 243, 289, 480, 481
Largely a matter of quarantine.....	77
Malaria—	
Chagres fever.....	479, 480, 598, 800
Greatest menace.....	77, 480, 598, 864
Prevalence of, compared with its existence in various States.....	78, 477
Reduction of, by sanitation.....	798
Specific for.....	373, 799
Per cent of sickness.....	477, 478, 799, 801, 863
Pneumonia produced greatest mortality.....	800
Rainy season the sickly period.....	45, 46, 477, 598
Ratio of sickness among colored and white employees.....	478, 798-801
Statistics of health conditions more favorable to Colon than Panama ..	491, 598
Reason for above.....	492, 597, 598
Statistics of death rate compared with period of French occupancy.....	478, 479
Stevens, J. F., views concerning.....	45, 78, 289
Trade winds, effect on health.....	597, 598
Yellow fever—	
Aden noted for prevalence of.....	701

**Health conditions on Canal Zone—Continued.****Yellow fever—Continued.**

	Page.
At Colon and Panama .....	704, 798
Caused demoralization of working force.....	171, 173, 221, 697
Duration of disease .....	705
Epidemic, when.....	700
Expenses incident thereto .....	803, 804
Extent of, when fumigation resorted to.....	700
Extermination of, at New Orleans .....	815
Fear of, removed by sanitation .....	797, 798, 799
Laborers immune .....	43
Origin of.....	702
Panama noted for epidemic of.....	701
Police and courts used to eradicate.....	804
Prevalence of, in May, 1905.....	697

**Hospitals:**

Accommodations sufficient .....	479
At Ancon, visited by P. Bigelow .....	101
Cost of caring for Panamanians exceeds amount received from patients or Republic of Panama .....	819, 820
Detention hospital necessary, when .....	705
French buildings good, but need more space around cots .....	705
Plans for .....	587
Provision desired for 5 per cent of maximum force with ease of expansion to 10 per cent .....	705
Republic of Panama pays expenses of, when .....	819, 820
Report of French vice-consul, etc., concerning .....	863, 864, 869-875
San Tomas Hospital—	
Supported in part by Republic of Panama.....	815, 816, 817
Supported in part by Panamanians .....	819
United States bear most of expense of .....	815-820
Constructs and operates conditionally.....	731, 818
Reasons for so doing.....	819
Who admitted to.....	815, 816, 817, 863, 864

**Hotels:**

Construction of, at Ancon, Corozal, and Culebra.....	367, 587
Operated at a loss.....	472
Operated by Commission.....	64, 65, 226, 364, 433, 471
Plans for .....	374, 587, 609
Sufficient for present necessities .....	368

**Houses:**

Adequate for present force, but will be increased to meet additional requirements.....	372, 374, 610, 611
Character, size of, and furniture.....	368, 369, 860, 861
Delay in shipping materials and inadequate transportation facilities of Panama Railroad retards erection of.....	71, 587, 593, 594, 595, 656
Force of 1,500 to 1,600 engaged in constructing and repairing buildings..	587, 609
Ground needed for, near Panama.....	656
Improvement of houses at Colon retarded, why .....	597
Located on swampy land at Colon .....	56, 103, 491, 596, 854, 855
Most of those used by employees are furnished by the United States....	490, 596
Number of, built and rebuilt .....	609
Old French, number of .....	76, 77, 655
Overcrowding will shortly be relieved .....	915
Restoration of laborers' cottages built by French.....	76, 77, 366, 490, 587
Sanitary location selected for.....	370, 490
(See Buildings.)	
Supply of material always short .....	587
White employees live at Cristobal .....	56

**Ice:**

Furnished government by Panama .....	748
Manufactured on Isthmus.....	579, 673, 748, 749
Not purchased from Electric Lighting and Ice Company .....	673, 749
(See American Trade Developing Company.)	

**Importations. (See Canal Zone, government.)**



Indurated clay:	Page.
Alleged to dissolve in water.....	92, 263
Above disproved.....	93, 329, 640
Defined as tufa.....	252, 263
Holes for blasting can be bored in it with augers.....	639
Not found south of San Pablo.....	263
Would be good foundation for lower lock, although below sea-level part of canal.....	329
Insane, care of.....	816, 817
Inspection of materials. (See Purchasing department.)	
International banking corporation:	
Concerning directors of.....	209
Does nothing but banking business.....	746
Identity of.....	68, 69
Incorporated in Connecticut.....	210
Isthmian business with the Government, how transacted.....	204, 205
Party to "Monetary agreement".....	202
Panama branch operated under laws of the Republic of Panama.....	200, 201
Proposal of, to furnish silver.....	756, 757
Iron, purchase of. (See Purchasing department.)	
Isthmian canal affairs and Panama Railroad Company should have one head for the several departments.....	215, 216
Isthmian Canal Commission:	
Action of executive committee not binding on the Commission.....	790
Bears cost of double tracking Panama Railroad. (See Panama Railroad Company.)	
Condition of affairs when formed.....	339, 340, 341
Charlton, Paul, law officer of.....	218
Claims presented to, with reference to contested land claims which are not acted upon.....	726, 727, 787
Decision alleged in regard to purchase of materials in the markets of the world.....	132, 790, 791
Did a banking business at first, sold exchange, etc.....	757
Executive committee to reside on Zone.....	677
Fuel-oil, etc., Commission to decide concerning.....	882
Has not approved allowance to J. E. Markel nor charged accounts with.....	781
Indebtedness to Panama Railroad Company December 1, 1905, \$610,000.....	407
Monthly disbursements by.....	205, 909, 910
Office of administration created.....	336
Payments by old Commission, etc.....	219, 340, 341
Penal code enacted by.....	825
Preparation for active work by.....	343
Reasons for not contracting to feed employees.....	435, 452
Commissaries operated by, when.....	435, 622, 624, 625
Reduction in size of, suggested.....	676
Regarding tenure of office of commissioners.....	551, 555, 556
Relative to salaries of.....	678, 679
Report of Chief Engineer sent to.....	586
Right to loan money to Panama Railroad Company exercised in purchase of ships for.....	12, 407, 408, 690, 691
Also by loaning it \$400,000.....	193, 194, 222, 407
Staff of.....	336, 337, 338
Work divided into three departments.....	337, 391, 696
Isthmus:	
Climate enervating.....	79, 680
Commerce on, conducted by whom.....	68, 747
Concerning power on, for electrical purposes.....	98, 99
Growth of vegetation very rapid.....	623
Land between Costa Rica boundary and Canal.....	487
Rainy season.....	45, 46, 477, 598
Soil, fertility of.....	622, 623, 805, 806
United States should have control of lands outside of Zone in certain cases.....	80, 81
With proper sanitation commerce will pass through canal without serious danger to health of people engaged therein.....	648

## J.

Judiciary. (See Canal Zone, judiciary.)

## L.

Page.

**Laborers:**

As to ability of employees to dispose of savings in Panamanian silver..	770, 771
Character of, and how obtained .....	46, 47, 48, 53, 144, 680, 681
Check on .....	86, 87
Chinese—	
Experience with, on Pacific coast.....	94
Proposition to use .....	486
Recommended by John F. Stevens and John F. Wallace..	47, 82, 84, 294, 647
Worth two of the laborers at present employed (Stevens).....	48
Chinese-exclusion law and its application to the Government as well as a private contractor .....	489
Complaints of, have ceased, why.....	867, 869-876
Concerning charges of improper treatment of—	
Copies of letters—	
From Governor Magoon to the Secretary of War, dated January 19, 1906, transmitting copy of communication sent to various consuls requesting statement concerning treatment of their countrymen and their replies thereto .....	866
From Santiago de la Guardia, representing the Panama Govern- ment .....	869
From C. Mallet, British consul at Panama .....	869, 870
From J. Gabriel Duque, consul of the Republic of Cuba at Pan- ama .....	871
From Enrique C. Llorente, Mexican consul at Panama.....	871, 872
From Samuel Boyd, consul-general of Bolivia at Panama.....	872, 873
From Arturo Kohpcke, acting Italian consul at Panama .....	873
From Jerinimo Ossa of the Chilean consulate at Panama .....	874
From Fedirico Boyd, consul-general of the Republic of Nica- ragua.....	874, 875
From Luis Uribe, consul for Costa Rica.....	875
From I. Presiado, acting Spanish consul at Panama.....	876
Jamaicans—	
Affidavits concerning .....	931-940
Arrived in large numbers at their own own expense .....	389, 843
Education of .....	809, 810
Head tax, so-called, is really a deposit to cover return transpor- tation .....	814
Inefficiency of.....	624
Letters from British consul concerning complaints, etc.	839, 840, 869, 870
Negotiations to secure .....	47
Return home at Christmas if able to bear expense .....	103, 843, 934
Martiniquans—	
Complaints of.....	864, 865, 866
Concerning alleged refusal of authorities to permit them to return home.....	840, 859, 860
Condition of .....	838, 865
Copies of papers concerning treatment of—	
Letter from Governor Magoon to Secretary of War, dated January 19, 1906, transmitting papers .....	856
Letters from G. Bonhenry, French vice-consul at Colon, to A. Bonhoure, governor of the colony of Martinique, dated November 16, 1905 .....	856, 857
Letter from the French vice-consul to the department of foreign affairs .....	858, 859, 860
Report attached to above .....	860-866
Letter from Governor Magoon to the French consul at Colon asking if complaints continue and if service has improved, with favorable reply.....	866
Not as well educated as the Jamaicans .....	842
Contentment of, and aids to promotion of.....	477, 617, 859, 865, 875
Contracts for, who authorized to make.....	48, 391, 645, 647
Contract law .....	48, 489
Distribution of .....	600, 601
Drinking among, only trifling.....	53, 54, 55, 372, 373, 624
Eight-hour day. (See Eight-hour labor law.)	
Experimenting with.....	85
Feeding of. (See Feeding of employees.)	

Laborers—Continued.	Page.
Free to vote in Republic of Panama.....	721, 722, 731
Gold and silver pay rolls; increase of, etc .....	20, 79, 374, 375, 388
Housing of. (See Houses.)	
How treated by foremen.....	81, 82, 840, 866, 870
Idleness of, necessitates keeping extra force on hand.....	489
Improvidence of. Would like to be paid daily.....	175
Indians.....	85
Inefficiency of .....	53, 624, 809, 810, 811, 812
Japanese .....	647
Laws to protect .....	49, 50, 51
Laziness of .....	347, 485, 486, 489, 596, 611, 612, 622, 623, 866
Martinique women. (See Women from Martinique.)	
Negroes .....	52, 53, 82, 144
Number increased from 8,000 to 13,000 in three months.....	386, 388
Estimated to July, 1906, 24,000.....	375
Overtime, allowance for.....	348, 862
Panamanians. Letter from Secretary Guardia regarding treatment of.....	845, 869
Pay periods for, etc.....	765
Payment of. (See Wages.)	
Photographs filed with committee showing houses used by.....	842, 843
(See Employees.)	
Shower baths for use of.....	861
Silver demanded in payment of wages .....	694
Alleged promise of payment in gold .....	21
Spaniards. Regarding use of .....	84, 484, 485, 844
Supply of .....	388, 389
Ten-hour day would be good for both black and white .....	294, 348, 488
Transportation of. (See Transportation of employees.)	
Used by French .....	82, 484
Water for. (See Water supply.)	
White.....	82
Will not always work after being transported free .....	596, 611, 612
Lake navigation:	
Depth of.....	255
Extent of.....	235, 238, 239, 241, 246, 265, 304, 305
Excavation needed .....	257
To be cleared of stumps, etc., to a width of 1,000 feet.....	255
Width of .....	277
Lands. (See Canal Zone, lands.)	
Legislation needed:	
According United States full plenary powers in quarantine matters.....	831
Admiralty courts needed.....	915
Approving form of government established by Isthmian Canal Commission .....	910
As to accounting methods.....	174
Enabling employees to apportion salaries to their families.....	909
For government of Canal Zone .....	7, 825, 826, 912
Giving the Chief Engineer freedom in matter of hours of labor, pay therefor, etc .....	645
Giving the United States control over land outside the Canal Zone.....	80, 81
Land titles—	
Jurisdiction needed by Zone courts to judicially determine.....	718-727, 907
Mining rights, provision to secure .....	908, 909
Parties defendant.....	8
Registry of.....	719
New civil code.....	913
Provision in ship-subsidy bill affecting rights of United States shipping to and from canal.....	835
Quarantine, suggestion concerning treaty provision .....	15, 16
Reenacting section 2 of act of April 23, 1904.....	910, 912, 913
Respecting admission of merchandise at United States ports direct.....	834
To admit of building canal by contract.....	302
United States Supreme Court should have jurisdiction to hear appeals from supreme court of Canal Zone.....	830, 910, 911, 912
Lepers, care of .....	816
Limon Bay, unprotected. (See Breakwaters.)	

Lock-level canal:	Page.
Alignment good.....	257, 278
Better than sea level, why? (Stevens) .....	282, 284, 285, 286, 327, 331
Borings. (See Borings.)	
Can be built without any dams at all .....	316
Chagres River. (See Water diversions.)	
Channel—	
500 feet up to Gatun.....	249, 276
Depth at Gamboa .....	303
From Sosa to the Bay, same as sea level, 300 feet.....	287
To be cleared of trees, etc., in lake section, 1,000 feet wide.....	255, 256
Cost of .....	275
Course of .....	259, 326
Cost of changing 85-foot level to sea-level type, \$246,000,000.....	245
Currents prevented, how? .....	242, 258, 291
Dams. (See Dams.)	
Depth can be increased for 36 miles by raising bottom of sluice gates ....	285
Dredging. (See Dredging.)	
Elevation governed by Chagres River .....	291, 328
French work abandoned.....	236
Lake navigation, extent of. (See Lake navigation.)	
Locks, (see Locks)—	
Time required to pass ships through the three at Gatun, 55 minutes .	255
To be located near the residence of the mayor of Colon .....	254
Maintenance of, less expensive than sea level.....	292, 327
Navigation—	
Difficulties of, at 60-foot level .....	291
Less dangerous than in a sea-level canal.....	284, 286
Would not be disturbed by flood waters of the Chagres River.....	304, 305
No curves proposed in .....	321
Preferable at same time and cost for construction (Stevens) .....	291, 327, 331
Submerged lands. (See Canal Zone, lands.)	
Waters diverted. (See Water diversions.)	
Width of .....	276, 277
At Gamboa, 1½ miles .....	303
Bas Obispo to Emperador, 300 feet .....	259
Emperador to Paraiso, 200 feet .....	259
If revetment put in at 200-foot section, channel should be enlarged ..	262
Miraflores southward is a lake of upward of 1,000 feet wide.....	265
No dredging needed for above .....	267
No particular channel in lake portion because 55 feet width prevails	
1½ miles wide .....	255-256, 327
Paraiso to Pedro Miguel, 300 feet.....	259
Pedro Miguel to Miraflores, 500 feet .....	264
San Pablo to Gamboa, 800 to 1,000 feet .....	256
Locks:	
Gatun—	
Danger to locks from floods eliminated by dead water in lake .....	239
Indurated clay foundation good .....	329, 330
Ships move from one gate to the other.....	329
Three locks in duplicate and in flight.....	229, 253, 254, 317, 328, 329
Time required to pass ships through .....	255
La Boca—	
Two locks in duplicate and in flight .....	235, 244, 265, 266, 317
Would serve as tidal locks under the minority plan .....	265, 266
Miraflores—	
One lock at .....	235, 244, 265, 266, 317
Record corrected as to location of tidal lock at .....	283, 317
Relative to location .....	234, 266, 282, 283, 317
Spillway connected with .....	279
Minimum, usable dimensions of .....	254, 274, 285, 329
Protected from enemy's ships by distance .....	289, 290, 317, 328
Rock from Culebra cut not suitable for .....	261
Time needed for ships to pass through tidal lock.....	278
Ditto, at Gatun.....	255
Ditto, at Poe lock.....	278
To be made of concrete .....	329

	Page.
Locomotives for Panama Railroad Company and Isthmian Canal Commission .....	27, 29, 399
Lumber, etc., congestion of, on Isthmus. (See Pacific Mail Steamship Company.)	
Lundie, Doctor:	
Conversed with Poultney Bigelow .....	111
Protests against Government erecting an ice plant on the Canal Zone....	412
Sent by General Electric Company to report on the capacity of the Isthmus for electrical purposes .....	98, 99
Writes to the President, and mentions Mr. William N. Cromwell's stock holdings in the Panama American Company .....	579
M.	
Magoon, Charles E.:	
Appointed Commissioner and governor in April, 1905 .....	696
Appointed general consul for the Isthmian Canal Commission in 1904....	696
As to his ability to properly fill dual offices .....	751, 752
Business experience of .....	695
Offices held by, on Isthmus .....	696, 751, 793, 794, 894
Powers of, as governor and Commissioner within control of Secretary of War .....	751
Salaries of .....	793, 794
(See Canal Zone, governor of.)	
Statement of .....	695-981
Takes exception to testimony of J. F. Wallace concerning Y. M. C. A. building .....	895, 896, 915
Urged certain legislation .....	907-913
(See Legislation recommended.)	
Mail:	
Compensation for carrying, allowed to Panama Railroad Company and Pacific Mail Steamship Company .....	504
Delays alleged .....	865, 866
(See Postal and monetary agreement.)	
Transportation free by United States .....	199
Majority report of Board of Engineers:	
To be treated as confidential .....	5, 6
Malaria. (See Health conditions on Zone.)	
Management of canal affairs should be by executive committee .....	676
Maps:	
Completed .....	657
Department of, organized .....	650, 657
Purchased from New Panama Canal Company .....	426, 631
Showing boundary lines of private land holdings, etc .....	781, 783, 784, 785
Ditto, to be printed in record .....	786, 907
Marines at Bas Obispo .....	849
Markel, J. E.:	
Allowance of \$10,745.97 to .....	68, 781
Accounts of Isthmian Canal Commission not charged with .....	781
Bill for .....	442, 467, 629
Cromwell, W. N., redrafted minutes regarding .....	430, 431, 432, 433, 466
Improved conditions in feeding effected through Markel's suggestions .....	467
Legal liability to, as an expert .....	464
If contract had not been awarded, there would have been no question about paying him .....	467
Letter of Chairman Shonts regarding .....	430
Ditto, Secretary of War .....	441, 464
Magoon, C. E., had nothing to do with .....	781
Minutes of Panama Railroad Company's directors' meeting regarding .....	430
431, 432, 441, 442, 444, 461, 466 .....	467
No obligation as to contract .....	467
Ditto, to remunerate .....	431, 441, 456, 461, 464
Obligation recognized .....	430
Recommended by J. F. Stevens .....	430, 447, 463, 464, 467
Stevens, J. F., had no personal knowledge of .....	68
Business of .....	770

**Markel, J. E.—Continued.****Contract for feeding employees—**

(See Feeding employees.)

Expenses connected with contract.....	430, 431, 441, 464
Did nothing by way of preparation prior to going to Isthmus.....	628
Examined by Secretary of War.....	428, 429
Above testimony printed, where.....	429
Met Governor Magoon on Canal Zone in June, 1905.....	772
Services rendered by.....	428, 433, 434, 442, 443, 444, 463
Were not in anyway connected with the contract.....	443, 464
Visit to Isthmus, why.....	427,

428, 440, 442, 456, 463, 464, 625-631, 772, 773, 775, 776

**Wallace, J. F.—**

Acquaintanceship with.....	625
Ideas of, concerning possible arrangement with Markel to operate hotels.....	626, 627, 629
Invited Markel to go to Isthmus and furnished him free transportation to Colon, but no contract implied thereby.....	427, 434, 625-630
Letter to Mr. W. E. Dauchey.....	455
Letters written to Markel by.....	427, 428, 433, 627, 628
Question of his recommending payment to Markel of ten or eleven thousand dollars.....	628, 629, 630
Visit of Markel to, at New York.....	626, 630, 631

**Martinique women. (See Women from Martinique.)****Materials and supplies:**

Bills for, now paid promptly, effect of delay.....	175, 670
Delay in getting.....	20, 388, 588, 589, 590, 593, 594
Delays due to lack of proper organization.....	20, 387, 388, 591, 592
Difficulty in securing.....	128, 129, 388, 698-701
Excessive amount purchased in error.....	150, 152, 158
Government methods applied to bids.....	123
Jurisdiction of bureau of materials and supplies changed.....	170-174, 591, 592
Method of purchasing.....	393-400, 641
Reorganizing system of requesting.....	388, 592, 593
Reorganizing division of materials and supplies.....	338
Safeguards to insure quantity, quality, and proper prices.....	86, 87, 199, 221
(See Purchasing department.)	
Stock maintained, how.....	183, 194, 393
Stock taking.....	148, 179, 184, 195
Successful bidder, how determined.....	122, 131, 132, 133, 153, 460
Supply insufficient on Canal Zone, when.....	587
Transportation of. (See Freight.)	

**Mechanical department organized..... 649, 655****Minerals, concerning presence of, on Isthmus:**

Coal.....	89, 908
Gold.....	908
Manganese.....	908
Material for making cement.....	89

**Minority report..... 5, 6****Minutes of boards of directors:**

Customary to redraft them.....	445, 466
--------------------------------	----------

**Monetary agreement:**

Advantages of, to employees desiring drafts.....	768, 769, 770
Advantages of, by maintaining parity.....	202, 476, 693, 740, 754, 755
As to banks depositing money with Government for security.....	211
Amount of commission paid by United States and how covered into the accounts.....	201, 212
Accounts audited in Washington.....	200, 212

**Coinage. (See Coinage agreement.)**

Congressional action needed to reimburse bank for value of accepted draft lost in transit to New York.....	744
Connection of banks with the lottery.....	210, 211
Copy of agreement.....	202
Currency furnished, how.....	202, 203
Danger in.....	475, 742, 743

## Monetary agreement—Continued.

Page.

Date executed .....	738
Date expiring .....	204, 744, 745, 909
Disbursements by Commission per month .....	205, 909, 910
Drafts—	
Drawn on bank before pay day, when .....	765, 766
Exchange on .....	202, 212, 214, 740, 750, 753
Exchange misstated .....	750
Exchange paid by employees would not be more than 3 per cent silver .....	203, 754, 762, 763
Possible effect of banks refusing to cash .....	742, 766
How effected .....	756-759
International Banking Company. (See International Banking Corporation.)	
No account kept by Isthmian Canal Commission with banks who are parties to the agreement .....	212
No penalties imposed under .....	203, 764, 765, 766
Not of an international character .....	760-761
Parties to and standing of .....	68, 69, 200, 202, 209, 210, 763
Parties to agreement do a general merchandise business except International Banking Corporation .....	746
Payment under, how and when made .....	200, 766
Profits under, how made .....	201, 214, 747, 748, 753
Profits possible .....	747, 757
Republic of Panama—	
Interest of, in agreement .....	759, 760, 767, 768
Represented by William Nelson Cromwell .....	202, 204, 411, 758, 759, 762
(See Postal and Monetary agreement.)	
Silver—	
Corner on—	
Possible .....	475, 741, 742, 745, 769
Protects Isthmian Canal Commission from .....	475, 476
Cost of, to Commission—	
Express charges, insurance, etc., were incurred prior to execution of agreement .....	205, 206, 209
Furnished at less cost than maintenance of a subtreasury would entail .....	744
Of shipping, more than per cent banks charge for handling .....	207
Percentage charged Government for .....	201, 205, 739, 740
Regarding sale to United States at 1 per cent premium .....	747
How secured by banks .....	207, 213
How secured by Commission .....	201-212, 673, 693, 734, 735
International Banking Corporation made proposal to furnish .....	756, 757
Reasons for using Panamanian coins .....	738, 742, 767
Value of, in gold .....	227
Republic of Panama's interference would cause but a few days delay in getting supply of .....	767
United States—	
Assumes no risk of loss under .....	207, 208, 209, 211, 741
Does not deposit money with banks .....	211, 212
Not a party to .....	204, 760, 761
Prohibited from doing banking business .....	672, 757, 762
Prohibited from paying employees by check or draft .....	757, 769, 770
Would have difficulty in maintaining supply of United States coins .....	742
Why made .....	672, 673, 736-739
Money. (See Monetary agreement.)	
Mosquitoes:	
Agents in transmitting various diseases .....	696
Effect of a great lake as to .....	242, 243
Extermination of, attempted .....	19, 699
Fumigation, etc., has largely decreased insect life .....	44, 699
If exterminated, yellow fever and malaria would not necessarily disappear .....	698
Not numerous on Isthmus .....	43, 44, 46
Preventing breeding of .....	596

N.

## New Panama Canal Company:

Chargeable with damages account land titles, when? .....	8
----------------------------------------------------------	---

New Panama Canal Company—Continued.	Page.
Dividends paid largely in excess of earnings.....	579
Maps purchased from.....	428, 661
Received \$40,000,000 from United States for property of.....	579
Supplemental claim of.....	563, 584, 579, 580, 581
Northers, effect of, on canal.....	73, 74, 75, 233, 234

## O.

Obaldia, J. D., de, director of Panama Railroad and minister of Panama to the United States.....	408, 409, 481
Oil pipe lines:	
Associated Oil Company of California has not submitted formal written proposal.....	883
Bates, Lindon W., proposal of.....	881, 883, 929, 930, 931
Copies of correspondence concerning concessions.....	882-889
Funds of Isthmian Canal Commission not involved, hence no bids would be called for.....	890, 893
Gulf Refining Company proposal.....	881, 883, 923-926
Higgins Oil and Fuel Company.....	881, 883, 921, 922, 923
Instructions regarding advertising for material, etc., and their bearing on competition for oil pipe lines.....	890, 893
Magoon, C. E., had no official knowledge concerning proposed establishment of.....	745, 746, 877, 878, 881
The Texas Company proposition.....	881, 927, 928, 929
Union Oil Company of California—	
Copy of concession by Republic of Panama to.....	878, 879, 887, 889
Copy of revocable license to.....	890, 891
Concerning above.....	886
Isthmian Canal Commission, order concerning. Copy requested.....	892
Letter from John Baker, jr., manager.....	886-889
Magoon, C. E., has no official knowledge concerning.....	892
Memorandum regarding application of.....	883
Objections to granting application.....	884, 885
Possibility of building without entering Canal Zone.....	880, 889
Primary object is to secure a pipe line across the Isthmus for transportation purposes.....	884, 888
Oil for use as fuel:	
Matter considered.....	877
Question of necessity for Isthmian Canal Commission passing upon propositions to supply.....	882
Relative value of coal and oil.....	884, 925

## P.

Pacific Mail Steamship Company. Concerning its alleged responsibility for freight congestion:	
Bubonic plague and its effect on commercial business.....	510
Coastwise rights.....	13, 14, 526
Coffee shipments are made during first three months of the year.....	85
Contract for through freight billing.....	12, 13, 497, 536
Alleged effect of terminating, and denial of.....	16, 82, 526
Correspondence showing cause of, and delay to ships.....	501, 518, 519, 520, 521
Demurrage paid by United States on account of ships delayed.....	505
Denial of employing smaller ships.....	527, 534, 535
Freight—	
Amount crossing Isthmus.....	495, 523
Auction sales of unidentified freight.....	39
Canal freight given preference.....	496, 498, 499, 525
Gunpowder loaded with mixed freight.....	530
Moved to and from Ancon.....	509
Must be sorted and way-billed.....	508, 529
Rates exacted under agreement.....	504, 683
Freight congestion—	
Included all kinds of material going from New York.....	175
Lumber on Pacific coast.....	175, 176, 388
Causes of—	
Began with labor troubles.....	495, 496
Bierd, W. G., regarding.....	40, 41, 528



## Pacific Mail Steamship Company—Continued.

Page.

## Freight congestion—Continued.

## Causes of—

Cars loaded indiscriminately .....	499, 520
Cars used for storage purposes .....	37, 692
Due to quarantine, small ships, etc. ....	13, 15, 16, 40
Failure of Panama Railroad Company to maintain schedule .....	537
Inadequate equipment .....	37, 495, 525, 692
Lack of marks to identify .....	38, 39, 498, 525
Lack of sufficient warehouse room, etc. ....	388, 691, 692
Poor conduct of railroad affairs .....	39

(See Quarantine.)

## Remedies for—

Double tracking Panama Railroad .....	12
Improved equipment and management of railroad affairs .....	500,
	503, 531, 532
Machinery for handling .....	375
Penalizing Pacific Mail Steamship Company .....	17, 526, 534
Relieved at Colon by additional docks, etc. ....	15
Sorting and waybilling .....	508, 529, 692
Utilization of other lines of ships, or United States transports .....	13,
	17, 83, 532

Ignores contract obligations in order to aid railroad .....	503
Isthmus route must be kept open as highway under railroad franchise .....	496
Law preventing people leaving Isthmus during epidemics .....	539
Mails, compensation of, for carrying .....	504

## Panama Railroad—

Compensation received from United States for carrying mails .....	504
Employees wages reduced, effect of .....	495
Management of, blamed for freight congestion .....	500
Schedule not maintained .....	537
Penalties inflicted on account irregularity of service .....	503, 526, 535
Quarantine interfering with operation of .....	15, 538
Ships delayed by Panama Railroad waiting for cargo or coal ...	500, 518, 519, 520
Ships sailing from La Boca leaving much freight on dock .....	40
Schedule of arrival and departure of ships during 1906 .....	511-517
Statement made by Secretary Taft complaining of the service of .....	494
Statement modifying above .....	494, 495
Steamers on Pacific side .....	495
Tehuantepec Railway will compete with Panama Railroad .....	270, 540, 541
Through billing from Puget Sound points to New York .....	536
Traffic increase on Isthmus during 1905 .....	523, 524
Transcontinental railroads, interest in traffic arrangement between Panama Railroad and .....	533

## Panama:

Anchorage, etc., at .....	729
Conditions at .....	696
Electricity and ice at, how supplied to United States .....	748, 749
Houses for employees .....	588, 656
Population .....	55, 56
Sewerage .....	588, 598, 599
Water supply. (See water supply on Canal Zone.)	

## Panama American Company:

Cromwell, W. N., a stockholder in .....	579
-----------------------------------------	-----

## Panama Canal Company:

Settlement with .....	580, 581
-----------------------	----------

## Panama Railroad Company:

A New York corporation .....	9, 400
Accounting of, no division of accounts at date new Canal Commission was appointed .....	218
Accounts separated from those of Isthmian Canal Commission .....	134,
	135, 154, 189, 212, 215, 216, 217
Audited in Washington, when .....	191
Final audit in New York .....	190, 193, 194, 220
How finally paid .....	193
Monthly statement made to Washington .....	190, 191
None pass through the Auditor for the War Department .....	217
What are audited on Zone .....	194

<b>Panama Railroad Company—Continued.</b>	<b>Page.</b>
Adams, John, auditor for, in New York .....	220
Agreement with Pacific Mail Steamship Company. ( <i>See Pacific Mail Steamship Company.</i> )	
Attorneys for, Sullivan and Cromwell .....	218
Compensation, \$6,000 .....	410, 411
Audit effected from copies of vouchers .....	194
<b>Bonds—</b>	
No legal objection to taking up by condemnation, etc. ....	10, 11
Sale of, authorized in New York .....	894, 895
<b>Bonded indebtedness—</b>	
Statement of .....	919, 920, 921
Treaty obligation for annual payment to Panama obviated by .....	919, 920
Bridges, old and weak .....	36
Cars not glazed .....	44
Commercial business of and importance of preserving uninterruptedly and encouraging .....	385, 527, 682, 683, 684, 686
Commissaries operated by. ( <i>See Commissaries.</i> )	
Contracts with Canal Commission, how made .....	408
Corporate character of, admits of administration other than as a Government railroad .....	10, 11
Cromwell, W. N., connection with. ( <i>See Cromwell, W. N.</i> )	
<b>Directorate</b> .....	408, 409, 481, 894
Each director has equal voice at meetings of the board .....	410
No compensation for attendance at meetings .....	409
<b>Division of expense with Isthmian Canal Commission—</b>	
Copy of agreement concerning .....	376, 399, 400
Becomes operative when .....	403
For equipment, etc. ....	60, 63, 216, 379, 407
Minutes of executive committee of the Isthmian Canal Commission relating to .....	403
Minutes of Isthmian Canal Commission .....	404
Who recommended .....	402
<b>Docks. (<i>See Docks.</i>)</b>	
<b>Double tracking—</b>	
Action of Commission and executive committee relative to charging of expense .....	403, 404
Copy of agreement for double tracking .....	376-378, 400-402, 404-406
Explanation concerning .....	376, 384, 385, 685
Recommended by J. F. Wallace .....	684
Will relieve situation as to handling of freight .....	12
Work commenced on .....	26
<b>Earnings of, etc</b> .....	270, 271
<b>Equipment—</b>	
Badly deteriorated and inadequate .....	27, 37, 343, 413, 495, 525, 684, 692
Cars ordered .....	26, 28, 692
Cost of new .....	59, 413, 421
Engines ordered .....	27, 29, 692
Equipment contracted for is of American manufacture .....	61
Estimated cost of changing gauge and equipment .....	58, 59, 422
Ordered by Chief Engineer Wallace .....	27, 421, 610
Track is of special gauge, necessitating cars, etc., being made to order .....	59, 343, 344
No delay by reason of above .....	345
Estimated value of, \$20,000,000 .....	270, 271
Fiscal year ends with calendar year .....	220
Freight congestion. ( <i>See Pacific Mail Steamship Company.</i> )	
Freight rates. ( <i>See Freight.</i> )	
<b>Gauge—</b>	
Regarding changing of .....	58, 422
Unfavorable to change .....	59, 344
General condition of .....	413
Isthmian Canal Commission's indebtedness to .....	407
Land owned by. ( <i>See Canal Zone, Lands.</i> )	
Location of, to be changed .....	273, 298, 371, 685
Market contract made by. ( <i>See Feeding employees.</i> )	
May be carried through cuts .....	272, 273, 383, 384, 685, 686
Money loaned to. ( <i>See Isthmian Canal Commission.</i> )	

## Panama Railroad Company—Continued.

	Page.
Motive power of, etc.	37, 343
Propriety of making it a Government railroad	9, 10, 11, 12
Purchasing agent for	135
Receipts go into treasury of, and are not accounted for in the Treasury of the United States	216
Relation of, to canal work	215, 216, 273, 385, 682
Required to keep railroad open as a public highway between Atlantic and Pacific	496
Report of board of directors for ten months ending October 31, 1905	220
Right of, under its charter to contract to feed Isthmian Canal Commission employees	451
Roadbed good	35, 36, 343
Ruling of Isthmian Canal Commission to buy in markets of the world not binding on	791
(See Pacific Mail Steamship Company.)	
Shipping tax at Mindi not applicable to ships of Panama Railroad Company under its charter	835
Stevens, J. F., vice-president and general manager	409
Stock of, how held	8, 9
Transportation—	
Of employees. (See Transportation of employees.)	
Of spoil. (See Freight.)	
Track	26, 28, 36, 58
Treated as a separate bureau would be	216
Value of, when canal is completed	270, 271, 273, 298, 686, 687, 688
Wallace, J. F., elected general manager, etc.	566, 681
Panama Steamship Line:	
Canal Commission should have no connection with	690
Competition with	16
Encouraging Isthmian business by agreement with Pacific Mail Steamship Company	527
Exempt from shipping tax under charter of Panama Railroad Company	835
High freight charges of, compels Commission to pay more to other steamship lines	691
Panama Railroad Company should be separated from	682, 687, 690
Police. (See Canal Zone government.)	
Postage:	
Franked mail to be carried free	197, 199, 730
Rates to be charged	672, 730
Sealed mail pouches to be carried	730
(See Postal and monetary agreement.)	
Postage stamps, surcharged, Panamanian:	
Bought from Republic of Panama at 40 per cent their face value and sold at full face value	188, 195, 196, 198, 713, 714, 730
Concerning law authorizing purchase of and use by United States Government	188-189, 196, 199
How used	197
Postmasters make request for, on treasurer of Zone	196
Proceeds from sale of, go into treasury of Canal Zone government	188, 714
United States surcharged stamps were at first used, but later discontinued	198, 199, 713
Many destroyed	198
United States postage stamps can not be used	196, 730
United States carries the mail and pays the Panama Republic for the stamps affixed to it	199
Postal and monetary agreement with Panama:	
Conditions moving to its execution, etc.—	
Employees could get their pay in United States currency, in Treasury drafts, or exchange the currency for silver	672, 757
Electric Light and Ice Company aggrieved because the United States did not buy ice and light of it	673, 748, 749
Imports were effected through United States ports to the loss of the Republic of Panama in fees and revenues	672
Only public matters were covered in the agreement	673
Operation of postal arrangement as to postage, etc	196, 199

Postal and monetary agreement with Panama—Continued.	Page.
Conditions moving to its execution, etc.—Continued.	
Panama merchants discovered that they would suffer by establishment of stores on the Canal Zone and free importations of merchandise..	672, 749, 750, 751, 775
Post-offices were instituted and the Panama Republic lost the difference between 5 cents and the United States rate of 2 cents .....	672
Postal arrangement entered into to placate Panama and give the Republic a source of revenue .....	674, 688, 768
Secretary Taft (as Acting Secretary of State), with Mr. Cromwell, visited the Isthmus concerning .....	673, 674
(See Monetary agreement.)	
Treaty with Panama securing the canal rights to the United States was so framed as to give the United States the canal with a port at either end under the control of another government. Change effected..	671, 672
Treasury drafts sold to merchants at a premium took revenue from Panama banks .....	672
The postal agreement to be effective only after the monetary agreement was enacted .....	730
Post-offices, where first located .....	713
Public Accountants' Corporation of New York:	
Arrangement with, to create a system of accounts .....	340
Examined Isthmian Canal Commission accounts .....	218, 341
Pudding stone near Obispo .....	640
Purchasing department:	
Accounts—	
Check on joint accounts .....	134
Of Panama Railroad Company, purchases kept in New York, and those for the Canal Commission in Washington .....	134, 154
Would be better if work were done under separate heads .....	135
Advertising—	
All purchases over \$10,000 must be through advertisement ....	136, 137, 890
For supplies, and when purchased without .....	119, 121, 122, 123, 130, 131, 138, 158, 396
In foreign countries, not resorted to by Canal Commission .....	133, 134
Where .....	123, 146, 396
Anderson, Alfred—	
Purchasing agent at New York .....	135, 150
Purchasing agent of Panama Railroad Company .....	120, 150
While with the railroad company received extra pay for services performed for the Canal Commission .....	120
Work of .....	121
Assistant purchasing agents—	
Duties of .....	119, 120, 147, 178
Needed in United States .....	119, 120, 121, 146, 147, 178
Not needed abroad .....	134, 143, 144, 152, 153
Bids—	
Bonds required to accompany .....	123
Changing bids to save money to the Government .....	132
Competitive, for rails, cement, coal, etc .....	152, 153, 154
Delivery at La Boca or Colon .....	146
Foreign. (See Foreign competition for materials, etc.)	
How successful bidder is determined .....	122, 131, 221, 397, 398, 890
Increase in price due to delay in paying bills .....	670, 671
Instructions, schedules, etc., concerning .....	159-165, 221
Opened in public .....	131, 158, 397
Responsibility of bidder, how determined .....	123
Transportation to seaport included in .....	140
Unsuccessful bidders, complaints from .....	398, 399
When contract awarded to lowest bidder .....	131, 153, 397, 890
Circular No. 17 showing methods in vogue for purchasing .....	175, 176
Circular proposals sent to those who ask for them .....	122, 137, 159, 396
Why not sent to dealers without being asked for .....	136, 137, 138
Clerical force .....	129
Coal—	
Cost of .....	690
No assurance that railroad company has examined test reports on....	142

## Purchasing department—Continued.

Page.

## Coal—Continued.

No competition for supply of, when.....	142, 153, 154
No efforts made to ascertain where best advantages are for obtaining coal.....	142
Navy Department tests applied to.....	154
Panama Railroad Company has monopoly of coal trade.....	690
Pocahontas coal from Baltimore used.....	141, 689
Purchased by Panama Railroad Company and resold to the Isthmian Canal Company.....	140, 141, 154
Purchase of, by Panama Railroad Company, why.....	140, 153
Purchased through competitive bids.....	153, 154
(See Canal Zone, coal.)	
Testing of.....	141, 143
Transportation of difficult, why.....	27, 413, 689, 690
Would be better to have it under control of one department.....	141

## Foreign purchases. (See Foreign competition.)

## Gallagher, Maj. Hugh J.—

Did not assume any paper accountability upon assuming the position of purchasing agent on February 1, 1905.....	127, 128, 151
Does not select laborers.....	153
Experience of.....	124, 155
Extra pay received from Commission.....	127
Salary of.....	127, 156
Separated purchasing agent of the Railway Company from that of the Commission.....	135, 150
Not responsible for rates charged by Panama Steamship Company for transporting materials.....	126
Testimony of.....	117-165
What duties are performed by Mr. Ross and what by Major Gallagher.....	151

## Governmental methods followed in the purchase of supplies and materials.....

118, 123

## Inspection of materials and supplies—

Assistant purchasing agent acts as inspector in some cases.....	120, 147, 148
Is had before shipment and on the Isthmus.....	145, 149, 186, 200
Special inspectors to inspect lumber.....	118, 119, 130, 149

## Iron—

Rails, no foreign bids for.....	145, 152
Where purchased and price.....	61, 142
Locomotives for Canal Commission.....	399
Lumber purchases far in excess of six months' supply.....	148, 149, 150
Where purchased.....	118, 149, 587, 593, 594, 595
Method of purchasing.....	393-400
No favoritism shown in purchases.....	154
Only emergency supplies delivered other than at La Boca or Colon.....	125
Organization of, effected by Major Gallagher.....	118
Purchases made in United States are audited in Washington.....	193
Purchasing agent is responsible for proper prices.....	124, 199, 221
Penalties inflicted for delay in shipment.....	150
Purchasing board of the Panama Railroad Company consolidated with the Commission.....	134
Would be better if separate.....	135

## Purchases—

Foreign. (See Foreign competition for materials, etc.)	
In markets of the world.....	132, 790, 791
In the open market. Amount of, etc.....	123, 124, 125, 587, 592, 593, 641
In the United States preferred, and why.....	143
Made in the interior of the country, but no posts established there.....	139
Of dredges.....	134, 394
Of lumber on Isthmus.....	587
And demurrage paid on.....	506
On Pacific coast.....	118, 119
Open and public by competitive bids.....	152
Regulations covering—	
Articles manufactured and turned into store.....	181
Board of survey.....	186, 187
Custody and issue of materials and supplies.....	179

<b>Purchasing department—Continued.</b>	<b>Page.</b>
Regulations covering—Continued.	
Delivery of supplies and marking same .....	177, 178
Inspection .....	186
Purchasing agents on Isthmus .....	178
Property records .....	183
Purchasing and forwarding agents in the United States .....	146, 147, 178
Purchases, how made .....	176, 177, 393-400
Records of materials and supplies .....	182
Requisitions, how made .....	121, 180, 184, 591, 592
Sales of unsuitable supplies .....	187
Scrap material, how disposed of .....	182
Storekeepers .....	183, 184
<b>Requisitions—</b>	
Accumulation of, without being acted on .....	128,
129, 149, 158, 339, 388, 588, 589, 592	
How received and approved .....	121, 130
Right reserved to reject any and all proposals .....	124
Ruling of Isthmian Canal Commission to buy in markets of the world, not binding on Panama Railroad Company .....	790, 791
(See Materials and supplies.)	
Ships for Panama Railroad Company .....	125, 126, 127, 407, 791, 792
Specifications prepared on the Isthmus by whom .....	123, 588
Transportation of supplies. (See Freight.)	

## Q.

<b>Quarantine:</b>	
Commercial business affected on account of access to outside ports being cut off by .....	539, 702
Detention hospital, necessity for .....	705
Did not affect movement of trains between Colon and Panama .....	701
<b>Interference with—</b>	
Food supply .....	353
Operations on Isthmus .....	701
Pacific Mail Steamship Company .....	15, 42, 538
Railroad traffic .....	42, 43, 701, 702
Ports affected by, statement of J. F. Stevens concerning .....	42, 422, 423
Should be made to apply both as regards persons coming and going .....	539, 704, 705
Strictly and vigorously enforced and how .....	43, 705, 831
Suggestion of treaty provision concerning .....	15, 16
<b>United States—</b>	
Controlled by, at Panama and Colon .....	51, 79, 80, 730, 831
Officials of, appointed by Republic of Panama as quarantine officers .....	831
Powers of quarantine exercised by, in all the waters of the Bay of Panama. Authority therefor desirable .....	831
<b>Quartermaster department, work of .....</b>	<b>157, 650, 656</b>

## R.

<b>Railroad:</b>	
Cost of ties .....	298, 299
Ties for construction tracks .....	150, 299
Tracks for work trains .....	24-28, 71, 610
<b>Railfall .....</b>	<b>321, 602, 647</b>
<b>Redfern, S. E.:</b>	
Purchasing agent at New Orleans .....	120, 128
<b>Republic of Panama:</b>	
Annual payment to, under treaty .....	919, 920
Anchorage .....	729
As to law regarding use of Panamanian postage stamps .....	188, 189
Citizens of, confined in Zone jail .....	827
Deals entirely in specie .....	69
<b>Docks—</b>	
At Ancon and Cristobal, to be used by .....	728
At Panama and Colon, to be used by United States .....	729
<b>Elections—</b>	
No restrictions by United States on alien employees participating in .....	721, 722, 731
<b>Extradition and treaty of .....</b>	<b>827, 828, 845</b>

Republic of Panama—Continued.	Page.
Highways in, to be maintained by Canal Zone government, why .....	731
Hospitals, payment by, for support of .....	815, 816, 817
Import duties not to be levied on goods from Canal Zone .....	729
Manifests, etc., regarding ships clearing at Panama and Colon, to be made by .....	729
Municipal buildings of, located in Canal Zone, free to Zone government in perpetuity .....	731
Nothing in dispute between United States and .....	844-845
Panama and Colon, delimitation of .....	729
Police force and courts used in eradicating yellow fever .....	804
Postage stamps. (See Postage stamps.)	
Reasons for becoming party to monetary agreement .....	768
Reduction of duty upon certain articles imported into Canal Zone .....	728
Regarding annexation to United States .....	818
Revenue of, affected by postal and monetary agreement .....	671-674
Sanitation and quarantine to be controlled by United States in harbors of Panama and Colon .....	730
School system of .....	817.
(See Postal and monetary agreement.)	
Sovereignty of, over Canal Zone. (See Canal Zone, sovereign rights, etc.)	
Taxes and licenses low, why .....	804, 805
Taxes levied by municipalities for schools, etc. ....	796
Resolution of Senate providing for investigation of canal matters .....	3
Revenue. (See Canal Zone government, revenue department.)	
Revenue, collector of .....	795
Robinson, Tracy. (See Poultney Bigelow.)	
Rock:	
Continuity of, at any one place above sea level .....	639, 640
Expands 50 per cent to 70 per cent when broken .....	261
From Culebra cut not suitable for building locks .....	261
Ross, D. W.:	
Appointed general purchasing agent June 1, 1905 .....	131
Money saved to the Government by action of .....	132
Rum manufactured on Isthmus .....	53, 54, 372, 373, 795

## S.

Salaries of officials:	
Auditor of Panama Railroad in New York, \$275 a month .....	216
Chief justice, \$6,500 .....	806
Chief of division of accounts, \$2,100 from Commission and \$25 a month from railroad .....	223
Chief of division of labor and quarters, \$7,200 .....	66
Chief of bureau of municipalities, \$3,600 .....	795
Chief sanitary officer at Panama and Colon, \$4,000 and \$3,600 .....	802
Chief sanitary officer, \$10,000 .....	795, 802
Chief surgeon at Ancon hospital, \$4,000 .....	802
Collector of revenues, \$5,000 .....	795
Chief engineer, \$30,000 .....	549, 550, 678
Chief of police, \$3,000 .....	795
Commissary, \$6,000 .....	86
Deputy auditor, \$2,800 .....	216
Director of hospitals, \$7,500 .....	795
District attorney, \$5,000 .....	795
Emergency hospitals, physicians in charge of .....	802
Engineers: Highest rate \$15,000, and principal engineers \$6,000 to \$7,500 .....	90, 91, 454
General auditor of Isthmian Canal Commission and Panama Railroad Company, \$10,000 .....	216, 217, 224
Local auditor, \$4,500 .....	216
Medical department, why increase of, allowed army and navy officers .....	812-814
Of Commissioners, etc., should be more for those residing on Isthmus (Wallace) .....	550, 678-679, 680
Purchasing agent of Isthmian Canal Commission, \$6,480 .....	127, 155
Sanitation:	
Abandonment of proposed lake at Sosa suggested .....	288

## Sanitation—Continued.

Page.

## At Colon—

Alleged dishonesty of inspectors.....	102
Allegations of Poultney Bigelow.....	100, 101
Assisted by animal life in swamps.....	596
Chief sanitary officer's reply to Poultney Bigelow's criticism of.....	799
Description of swamps by Poultney Bigelow.....	99-103
Expenditure justified.....	94
Expenditure of large sum not planned, why.....	492
Filling up of swamps costly, but may be done.....	491, 855
Healthfulness improved by flooding twice daily with sea water.....	491
Laborers pay rent in Colon rather than occupy sanitary quarters at Cristobal and be subject to Isthmian Canal Commission regula- tions.....	491, 596
Report of committee of engineers on permanent sanitation.....	88, 849-853
Water supply. (See Water supply on Canal Zone.)	
Work involving \$300,000 planned.....	88
Chief sanitary officer's report.....	798, 799
Done at expense of United States.....	804, 818
Draining swamps, removing filth, etc.....	19, 20, 43, 77, 480, 491
Drinking water improved.....	698, 799
Fumigation—	
Cost of, borne by United States.....	804
Effect of.....	704
How done.....	383, 700, 704, 803, 813, 814
Mosquitoes exterminated by.....	44, 699
Has quieted fears of yellow fever.....	797, 798
Healthful locations selected for camps.....	490
Hospitals. (See Hospitals.)	
Increasing cubic contents of employees sleeping apartments.....	698
Ditto, hospital space.....	705
Lakes of fresh water tend to prevent malarial troubles.....	481
Leading officials in sanitary service, and salaries paid.....	697, 794, 795, 800-806
Mosquitoes. (See Mosquitoes.)	
Organization for work of.....	588
Refuse quickly cleared from Bay of Panama by buzzards.....	597
United States must retain control of.....	51, 367, 730
Why army and navy doctors are employed.....	814, 815
Work of, in general.....	382, 383, 609
Work of, in general commended by French vice-consul.....	864
Work hampered by delay in getting materials and supplies.....	589,
	590, 609, 698, 699, 700, 701

Schools. (See Canal Zone, schools.)

Schwerin, R. P., testimony of..... 493-541

## Sea-level canal:

Alignment changed to avoid rock excavation.....	233, 234, 278, 282
Cost of.....	290
Culebra cut begins at Obispo and runs nearly to La Boca.....	277
Currents and effect of, on navigation.....	280, 283
Curvature—	
Compared with Suez Canal.....	321
Effect upon navigation.....	322, 323
Dams—	
Not proposed on Gatun side of canal.....	330
Proposed at places where foundations are unknown.....	278, 280
(See Dams.)	
Delay to ships on account of narrow channel.....	285, 320
Dikes—	
Of dredged material, very compact.....	324, 325
To keep tidal waters out of canal prism at Pacific end.....	324-327
Embankments, height of.....	324
Experiments in excavating favorable to.....	386
French work abandoned.....	236
Locks. (See Locks.)	
Maintenance more expensive than for lock-level canal.....	292, 327
More dredging needed than for lock canal.....	268, 269



Sea-level canal—Continued.	Page.
Time needed to pass ships through tidal lock fifteen to twenty minutes ..	278
Time needed to build .....	290, 661
Wallace, J. F., favors sea-level canal .....	665
Water diversions. (See Water diversions.)	
Width of .....	72, 276, 277, 282, 324
Compared with Suez Canal .....	320, 321
Widening—	
Cost of .....	327
Would entail moving French dumps .....	72
Sharks' teeth found in wells on Isthmus .....	92, 93
Ships of Panama Railroad Company .....	125, 126, 127, 407, 790, 791, 792
Shonta, Theodore P.—	
Appointed chairman of the Isthmian Canal Commission April 3, 1905 ..	333, 336
Appointed John F. Stevens as chief engineer .....	337
Arrived on Isthmus with Mr. Stevens July 28, 1905 .....	343, 362
Authority of, in matter of purchase of materials and supplies .....	394, 396
Business experience of .....	333
Criticism by Mr. Wallace .....	614
Letter of, regarding Markel contract .....	430
President of Clover Leaf Railroad .....	334, 335, 336
Testimony of .....	333-492
Sickness. (See Health conditions.)	
Silver money. (See Coinage agreement and Monetary agreement.)	
Sosa and Ancon hills:	
Height of .....	235
Width of depression between .....	236
Sovereign rights of United States. (See Canal Zone, sovereign rights.)	
Spoil. (See Freight.)	
Stamped paper, tax on .....	188
Stark, W. B., auditor on the Isthmus .....	225
Business experience and salary .....	225, 226
Steam shovels:	
Cost of .....	396
Efficiency of .....	30, 31, 32, 661
Installed .....	610
Kind of shovels used by Mr. Wallace and before he assumed charge ..	71, 586, 610
No discrimination in purchase of .....	398
Number bought before Mr. Stevens assumed the duties of chief engineer ..	300
Number kept at work during preparatory period .....	379
Purchased .....	26, 396
Stevens, John F., chief engineer:	
Arrived on Isthmus July 28, 1905 .....	19
Authority of, to order machinery, etc .....	391, 392, 393
Defines his responsibility on matter of type of canal .....	231, 232, 322
Favors any lock canal in preference to sea-level canal .....	291, 327, 331
Recommends allowance to Markel .....	430, 447, 463, 464, 467
Recommends contract plan of building canal .....	49
Recommends United States control of police and sanitation .....	51
Suggestions for protection of canal and works from attack .....	289, 290, 317, 328
Testimony of .....	19-95, 229-332
Would agree with minority report except as to location of lock nearest Panama and immediate construction of breakwater .....	331
Stores, native, on Isthmus .....	68, 747
Suez Canal:	
Comparison with size and curves of proposed sea-level type .....	320, 321
Dimensions of .....	313, 319, 320
Freight passing through, not classified .....	689
Freight rates on .....	683, 689
Rainfall and topography greatly different on Panama Canal route .....	321
Supplies. (See Material and supplies.)	
Surveys:	
By French, inaccurate .....	632, 633
By Chief Engineer J. F. Wallace .....	75, 76, 608, 609, 632, 636
By Chief Engineer J. F. Stevens .....	242
Necessity for official survey of the territory of the Zone .....	724
Official survey being made of lines between the Zone and the Republic of Panama .....	723, 785

Surveys—Continued.	Page.
Private lands not surveyed in sections .....	722
Spanish surveys unsatisfactory .....	7

## T.

Taft, William H., Secretary of War:	
Letter of, concerning allowance to J. E. Markel .....	441, 464
Reason for visiting Isthmus .....	674
Statement of .....	3-17
Tariff:	
Concerning effect of, on prices .....	143, 153
Conflict would be precipitated with Republic of Panama if Cristobal and La Boca were made ports of entry .....	835
Foreign vessels enter La Boca and Cristobal from United States ports .....	836, 837
None exists on Zone. Zone ports are open ports .....	833
Reduced to 10 per cent to increase food supply, etc .....	353, 728
(See Canal Zone, importations.)	
Tariff of Republic of Panama (10 per cent ad valorem) prevails in Zone.	
How? .....	833, 834
Tehuantepec Railway will compete with Panama Railroad ....	270, 540, 541, 684, 687
Timekeeping system introduced .....	20, 21, 174, 175, 656
Time needed in which to prepare for active operations on the canal .....	69, 70
Transportation. (See Freight.)	
Transportation of employees:	
Charge per month by Panama Railroad Company for .....	60, 61
Former Chief Engineer Wallace unable to furnish .....	591
Interfered with, through delay in paying steamship companies for .....	669, 670
Laborers brought to the Isthmus at cost of the Government; also their families .....	57, 58, 389-392, 611, 612, 644, 859
On Panama Railroad .....	591
Treaty between United States and Panama .....	345, 351, 671
Annual payment under, obviated by bond issue .....	919, 920
(See Republic of Panama.)	
Type of canal .....	48, 49, 299, 385, 555, 663, 664, 665
Three plans and estimates by J. F. Wallace .....	607-610

## U.

Unit prices:	
Ascertained .....	601, 602, 603, 605, 609, 610, 647, 648, 658, 659, 660
Estimate of work below sea level uncertain .....	292, 293
Increased and decreased after Mr. Wallace resigned .....	379, 604, 605
Increase in wet season .....	379, 602, 647
Of efficiency for men and material .....	601, 602, 603
Relation of equipment, etc., to cost .....	70, 71, 379, 602
Removing and disposing of 1 cubic yard of dirt .....	292,
293, 387, 605, 647, 648, 658, 659, 660, 812	
Rising through various causes .....	621, 647, 648
Tables for work in Culebra cut .....	658, 659
United States sovereign rights. (See Canal Zone, sovereign rights.)	
United States Supreme Court:	
As to jurisdiction of, in any country over which the Government of the United States is not sovereign .....	911
Without jurisdiction over Canal Zone .....	830, 910, 911

## V.

Vegetables raised on Zone. (See Foodstuffs.)	
Vessels using canal will be of medium size to save heavy tolls which would be charged large ships .....	688
Rate per ton on Suez Canal .....	683, 689
Vouchers:	
Payment of, slow and uncertain .....	669, 670

## W.

Wages:	
Apportioning a portion of, to families is unauthorized by law .....	770
Character of money paid to gold roll .....	672, 757

	Page.
Wages—Continued.	
Comparison with rates paid in United States.....	681, 821, 822
Delay in paying.....	20, 21, 174, 175, 355, 870
Effect of reducing, on Panama Railroad.....	495
Increased in proportion to advance in price of foodstuffs.....	622
Question of paying partly by draft and balance in silver.....	758
Rates paid—	
Engineers.....	90-92, 454, 649
Foremen.....	810
Gold roll.....	820, 896-907
Laborers.....	51, 52, 486
Laborers higher than the French paid.....	862, 863
Stenographers.....	822
(See Salaries of officials.)	
Silver demanded by laborers.....	21, 694
Why Panamanian coins are used.....	738, 742, 767
Walker, Admiral J. G.:	
Extract from testimony of, relative to old French dredges, etc....	414, 423-426
Wallace, J. F.:	
Announcement to Secretary Taft at New York interview of desire to resign as chief engineer.....	572
Appointed—	
Chief engineer.....	549
Commissioner.....	550, 566, 567, 568
Director, vice-president, and general manager of Panama Railroad Company.....	566, 681, 691
For no stated period.....	551, 555, 556
General superintendent of Panama Railroad Company.....	564, 565, 681
Assumed duties of chief engineer on arrival on Isthmus.....	631
Conditions of appointment as commissioner.....	556
Conditions of service as chief engineer.....	548, 552
Not respected.....	556, 560, 575, 576, 577, 578, 586, 591, 668, 681
Criticised for large expenditure in Culebra cut.....	70, 380, 381, 386, 602
Cromwell, W. N.—	
"A dangerous man".....	578
Advised payment in last year of French ownership of \$100,000 in Pan- ama Railroad Company dividends more than earnings.....	579
Arranged interview between Mr. Wallace and Secretary of War in New York.....	569
Cabled Mr. Wallace his appointment as general superintendent of the Panama Railroad Company.....	564
Called at Hotel Marie Antoinette, in New York, by direction of Sec- retary of War, to inquire cause for return of Mr. Wallace to United States.....	569
Holds 22½ per cent of stock of the Panama American Company.....	578, 579
In reorganization of the Panama Railroad Company drew up resolu- tions, etc.....	568
Met Mr. Wallace first in Washington on June 7, 1904.....	563
On Isthmus with Secretary of War, November, 1904.....	564, 780
Present at interview between Secretary Taft and Mr. Wallace in New York.....	561, 570
Present at all interviews between Mr. Wallace and Secretary Taft on Isthmus.....	571
Relations with many large interests.....	578, 579
Relations with Panama Railroad Company a subject for discussion by Mr. Wallace at interview with Secretary Taft.....	577
Represented claim of new Panama Canal Company against United States for \$2,300,000.....	563, 564, 580
Above claim explained.....	580, 581
Was director and general counsel of Panama Railroad Company, but had no official connection with the Isthmian Canal Commission.....	561, 562, 577
Was looked upon as the protector of all interests on the Isthmus....	579
Wields influence which may bring scandal on canal enterprise.....	579
Demeanor of Secretary of War toward, at New York interview.....	571, 572
Engineering experience of.....	543, 544, 545
Equipment ordered by.....	421, 692
Excessive use of cable by.....	589

## Wallace, J. F.—Continued.

	Page.
Fish, Stuyvesant, copy of letter from, commanding Mr. Wallace	546
Interview with Secretary Taft in New York	570, 571, 572, 573
Invitation to visit Commission in Washington	548
Isthmian Canal Commission executive committee	566, 567
Left New York June 21 and arrived at Panama June 28, 1904	585
Left Panama for New York June 16, 1905	559
Left work on Isthmus well cared for	551, 554, 560
Made three visits to United States from Isthmus	568
Position of chief engineer not sought by	545, 553, 555
Recommends canal be built by contract	874
Relations with Chairman Shonts	561, 576, 577, 578
Relations with General Davis	557, 667, 668, 669
Report on result of year's work incomplete	605, 606, 607
Anxious to complete above and present to Board of Consulting Engineers	560, 605, 606
Copy of summary of	608
Report to Rear-Admiral J. G. Walker	649-665
Requested permission to visit United States for interview with Secretary of War	570
Resignation as Chief Engineer and reasons therefor	552, 572-577
Resignation included offices of Isthmian Canal Commissioner and Chief Engineer	574
Reasons assigned	574, 575
Willing to remain as Commissioner	553, 560, 561, 575
Salary:	
As chief engineer	549, 550
As Commissioner	550
Served as chief engineer only, from June 1, 1904, to April 3, 1905, and was then appointed Commissioner	549, 550
Secured valuable engineering data	381, 600-606
(See Y. M. C. A.)	
Statement concerning service and resignation	551-577
Statement of Secretary Taft concerning	562
Superintendency of Panama Railroad declined	565
Letter from Admiral Walker concerning	565
Testimony of	543-694
Type of canal should be settled to enable work to proceed properly	573
Opinion of, concerning type withheld	555
Unable to issue transportation on Panama Railroad to his own men	591
Would not have left the work, regardless of financial or other conditions, if in justice to himself and the work he could have remained	551, 552, 582
Water diversions and regulation works:	
Chagres River—	
A factor in determining canal level	291, 328
Canal protected from, by dead water in lake	258, 304
Carries but little silt	244
Control of—	
Is solution of engineering difficulties	291
Would be solved by a dam at Gamboa, which would also furnish electric light, etc.	609, 654, 662
Dam at Gamboa would impound flood waters and permit their escape into the canal at suitable times and in proper quantity	241, 242, 316
Failure of dam would wreck canal	280
No danger of a disturbance to canal navigation by reason of flood	305
Plan for disposing of	242, 279
Correct location of Gatun regulation works questioned	246, 253, 255
Gatun River diversion to be proceeded with	664
Regulation works at Gatun will be through a natural elevation forming part of the dam	252
Sea-level plan—	
Admits water directly into the canal	280, 286, 321, 324, 325
Disposes of some streams by forming lakes and turning the waters back	280
Will require the digging of new channels or widening old French channels for important streams	278, 330, 331
(See DAMS.)	
Sluiceways in Gatun dam to relieve canal	244

## Water diversions and regulation works—Continued.

## Spillway—

At Gatun dam will take care of Chagres River and affluents	240
At Gamboa dam would take care of Chagres River floods	238, 279, 305
At Miraflores	279
Between Ancon and Sosa	287

## Water supply on Canal Zone:

Alleged to be abundant and excellent	89, 372, 853
Analyses of	370, 373
Colon—	
Abundant and good	853
Alleged lack of	103, 104, 596, 854, 855
Inability to secure needful land delayed installation of plant	595
Old pumps being replaced with new ones	89
Originally furnished in tank cars	595, 854
Improved	698, 799

## Panama—

Obtained from reservoir	78, 371, 656
Work of installing plant delayed by lack of material	588, 589, 599, 656
Purity and source of, for Panama, Culebra, and Empire	78, 89, 370, 371, 372, 609
Waterworks and sewers department:	
Work of, and delays for want of material	588, 589, 590, 609, 650, 656

## Wharves:

At Colon controlled by Panama Railroad Company	16, 413
At Cristobal built by Commission	379
At La Boca, inadequate	692
Charges to Pacific Mail Steamship Company for use of, etc.	504, 519

## Women:

Concerning morality of	54, 55, 842, 872, 931
Recognized as married, when	58, 866, 931

## Women from Martinique:

Affidavits regarding character of	842, 931-941
Affidavits from clergymen	841, 841
Affidavits of watchmen regarding character of	980, 981
Affidavits of women regarding their employment, etc.	941-981
Governor Magoon secured affidavits respecting their relations to the community, etc.	831
Reasons for their going to the Canal Zone	389, 851
Sent to join husbands or brothers and act as servants in hotels, etc.	388, 838, 861
Those whose fares were paid went to work for the Government	58, 851
Transportation furnished to	57, 389, 390, 391, 391
Transportation arranged by John W. Settoon	389, 391

## Working force:

Disposition of	599, 601
Method of operation by engineers	586, 631, 636, 641
Number and pay of	45
Organization of, 8,800 built up	600, 610, 641, 641
Reserve force carried on account of material arriving irregularly	62
(See Employees and Laborers.)	

## Y.

## Yellow fever. (See Health conditions on Canal Zone.)

## Y. M. C. A.:

Abandonment of plan for, why	369, 613, 895, 89
Committee, comprised of Gen. G. W. Davis, Minister Barrett, and J. F. Wallace, looked into feasibility of utilizing the machinery of the Y. M. C. A. for the benefit of the employees	61
Expense of providing ground and building would be a proper one for the Government to assume	61
Plan made for construction of buildings	61
Not yet constructed	91
Recreation desired for employees	612, 61
Would make men more contented and situation requires it	61
Wallace, J. F., charged with want of desire to provide amusement for the employees	613, 614, 615, 61
Magoon, C. E., excepts to statement of Mr. Wallace concerning above	895, 81











1

2

LIBRARY OF CONGRESS



0 018 547 383 1